

DOCUMENTATION PAGE

Form Approved
GSA GEN. REG. NO. 27

AD-A267 499



REPORT DATE
1993

3 REPORT TYPE AND DATES COVERED
THESIS/DISSERTATION

4 TITLE AND SUBTITLE

The Evolution and Design of American Air Power After World War II: The Finletter Commission

5. FUNDING NUMBERS

6 AUTHOR(S)

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7 PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

AFIT Student Attending: University of Georgia

8. PERFORMING ORGANIZATION REPORT NUMBER

AFIT/CI/CIA- 93-102

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

DEPARTMENT OF THE AIR FORCE
AFIT CI
2950 I STREET
WRIGHT-PATTERSON AFB OH 45433-7765

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11 SUPPLEMENTARY NOTES

DTIC
ELECTE
AUG 6 1993
S C D

12a DISTRIBUTION STATEMENT

Approved for Public Release IAW 190-1
Distribution Unlimited
MICHAEL M. BRICKEP, SMSgt, USAF
Chief Administration

12b DISTRIBUTION CODE

13 ABSTRACT (Maximum 200 words)

93 8 05 166

93-18113



14. SUBJECT TERMS

15. NUMBER OF PAGES

117

16. PRICE CODE

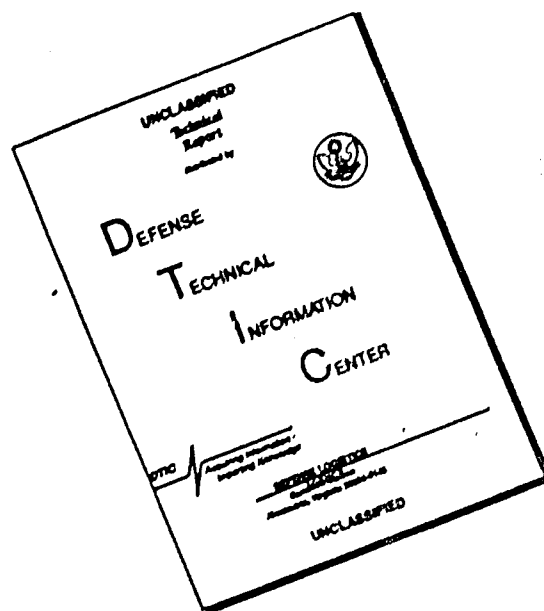
SECURITY CLASSIFICATION OF REPORT

18. SECURITY CLASSIFICATION OF THIS PAGE

19. SECURITY CLASSIFICATION OF ABSTRACT

20. LIMITATION OF ABSTRACT

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THE EVOLUTION AND DESIGN OF AMERICAN AIR POWER

AFTER WORLD WAR II:

THE FINLETTER COMMISSION

by

STEVEN WARREN MARTIN

B.S., United States Air Force Academy, 1983

M.S., The University of Arkansas, 1986

A Thesis Submitted to the Graduate Faculty
of The University of Georgia in Partial Fulfillment

of the

Requirements for the Degree

MASTER OF ARTS

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ATHENS, GEORGIA

1993

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ACKNOWLEDGEMENTS

Any historiographical research effort, no matter how insignificant, is possible only with the help of others. This paper is no exception.

From the beginning, the United States Air Force has given me the opportunity to do things that I otherwise never would have done. I thank the Air Force, especially those at the Air Force Institute of Technology and at Air Force ROTC Detachment 160, for superb administrative support throughout my studies at the University of Georgia. Also, I extend my warmest appreciation to the staff of the Air Force Historical Research Center for their help in finding much-needed documents concerning the postwar Air Force.

At the Harry S. Truman Library, I am deeply indebted to Liz Safly and Dennis Bilger for their expert assistance during my research. Their gracious hospitality, cheerful attitude, and interesting conversation made my time there much more pleasant and productive. I also am grateful to the Truman Library Institute for providing additional funds to cover the costs of my travel to the library.

Among those at the University of Georgia, I owe Professor William M. Leary many thanks for his much-needed help early in the application process, for advising me as I progressed through the program, and for guiding my research efforts. His professional attitude and hard work on my behalf can never be repaid. Professor Roy K. Flint always provided sound advice, helpful suggestions, and wisdom that could only come from someone with his historical experience and concern for others. I also am very

appreciative to Professor John H. Morrow for taking time from his busy schedule to serve on my reading committee. These distinguished gentlemen greatly contributed to any merit that this effort may have. Of course, the shortcomings of this thesis are entirely my own responsibility.

Most of all, I cannot adequately express my love and admiration for my wife Dorcas, whose untiring support, understanding, encouragement, and love during ten years of tremendous uncertainty and constant challenge are beyond my comprehension. I know that without her, this would never have been possible. For Heather and Shannon, a big hug and kiss for your patience and strength during the many times I was away, locked in my room, or too busy to play with you. I love you both and hope you will understand.

Finally, I thank God Who has never failed to provide for my family.

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INTRODUCTION

On 18 January 1948, Walter Winchell, the nationally syndicated columnist whose weekly Sunday night network radio broadcasts reached over 20 million Americans, startled listeners who had tuned in to enjoy his program that evening. Between the staccato bursts of imaginary telegraph keys, Winchell breathlessly informed his audience that a recently published report "proved to be the most electrifying document in American history since the Declaration of Independence."¹

The document to which Winchell referred, whose recommendations he believed the nation could not ignore, was *Survival in the Air Age*, the official report of President Truman's Air Policy Commission, headed by Thomas K. Finletter. Winchell's proclamation, while just one example of the enthusiastic response generated by the report, represented the rapidly rising swell of support for aviation by the American public after World War II. More importantly, it confirmed the dominant position that strategic air power had assumed in national security policy in the atomic shadow of the postwar years. As the report pointed out—and the vast majority of Americans seemed to believe—the development of a powerful strategic air force was essential because the postwar international balance of power meant that "world peace and the security of the United States thus are now the same thing."²

¹ Letter from Ernie Otto, Publicity ABC, to Alexes McKinney, Managing Editor, *Denver Post*, 20 January 1948, Miscellaneous Correspondence, PAPC Files, Truman Library.

² President's Air Policy Commission, *Survival in the Air Age* (Washington, D. C.: Government Printing Office, 1948), 4.

According to the Finletter Commission, for the United States to survive in the ominous cold war environment, its military establishment had to "be built around the air arm."³ "Our military security," the commission reiterated, "must be based on air power."⁴ This would entail, among other things, a massive buildup of strategic aircraft that revolved around an air force composed of seventy combat groups and a curious air-atomic strategy that emphasized deterrence on one hand and the ability to win a total global war on the other.

For air power advocates this was heady stuff. Less than six months earlier, the National Security Act of 1947 had given the Air Force its long-sought independence from the Army. And now, the most influential body ever assembled to formulate a national air policy had recognized air power as the primary means of defense for the United States. Nevertheless, as quickly as these events had taken place, those familiar with the situation knew that they were the culmination of a ragged continuum of deficient military air policies, industrial crises, and interservice conflicts that dated back over forty years.

1907-1918

"We believe," wrote Orville Wright on 15 June 1907, "that the principal use of a flyer at present is for military purposes. . . ."⁵ Wright's letter proved prophetic. Little more than ten years later, the airplane first demonstrated its value as an American military weapon during the First World War. After several years of grudging acceptance by a military establishment that had long been dominated by ground and naval officers who

³ Ibid, 8.

⁴ Ibid.

⁵ Letter from Wright Brothers to Board of Ordnance and Fortifications, War Department, 15 June 1907; quoted in Robert Frank Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force 1907-1960*, Vol. I (Maxwell AFB, Alabama: Air University Press, 1989), 15.

saw little potential in the newly-developed flying machine, the Air Service performed admirably, though not spectacularly, during World War I by dropping 275,000 pounds of bombs on German targets and downing 781 enemy aircraft.⁶

Although the war ended before the doctrine of strategic bombardment could prove itself, air power advocates viewed World War I as a positive experience and believed that time and technology would bear them out. Led by the irrepressible General William "Billy" Mitchell, the struggle to develop the air arm involved the establishment of an independent air force and the development of a fundamental air power doctrine. Despite Mitchell's flamboyant and well-publicized efforts, traditionalists within the Army and Navy succeeded in downplaying the role that the airplane had or would soon have in national defense efforts. Consequently, the development of military air policy became a painstakingly slow and often tedious process that involved the federal government (including the president, Congress, and various other agencies), the armed services, and the aircraft industry in a unique combination of politics, business, technology, and military doctrine.

While military aviation struggled to find its place in the early years, the American aircraft industry was virtually nonexistent. Before World War I the aircraft industry resembled a type of "backyard" production process more than a viable business enterprise.⁷ Since the much anticipated commercial value of the airplane had not yet been demonstrated, the most significant problem for the aircraft industry stemmed directly from the lack of a clearly defined mission for the flying machine within the Army. In other

⁶ Futrell, 27.

⁷ Herman O. Stekler, *The Structure and Performance of the Aerospace Industry* (Los Angeles: University of California Press, 1965), 2.

words, the Army gave no specific guidance on what types of aircraft, if any, it needed for potential air operations. Also, aeronautics was an expensive business, in terms of labor, materiel, and facilities, and the Army found it increasingly difficult to convince an indifferent Congress and public to support its aviation efforts.⁸ Although the aircraft industry received some governmental support, it was not nearly enough to keep Europe from gaining the aeronautical advantage that the Wright Flyer had given the United States in 1903.

Spurred by the fear of impending conflict, Congress attempted to remedy these problems in the next several years. The inability of the American aircraft industry to keep pace with their European counterparts in critical areas of technological development, especially in the production of aircraft engines, compelled Congress to create the National Advisory Committee for Aeronautics (NACA) on 3 March 1915. As an independent scientific agency, NACA's purpose was to study "the problems of flight with a view to their practical solution" and to "direct and conduct research in aeronautics."⁹ NACA later established the nation's leading aeronautical research laboratory at Langley Field, Virginia.

As the situation in Europe worsened, Congress enacted the National Defense Act of June 1916. This legislation increased the number of Air Service personnel and established a reserve corps of officers and enlisted men. In August 1916, as part of the war mobilization effort, Congress established the Council of National Defense, which created the Aircraft Production Board (APB) to assist in the design, selection, and procurement of aircraft for mass production.¹⁰ The APB worked to turn the "backyard"

⁸ Alfred Goldberg, ed., *A History of the United States Air Force, 1907-1957* (New York: D. Van Nostrand Company, Inc., 1957), 8.

⁹ Juliette A. Hennessey, *The United States Army Air Arm, April 1861 to April 1917* (Washington, D. C.: Office of Air Force History, 1985), 130-131.

workshops into small factories and help turn a peacetime industrial base into one that could meet the demands of wartime aviation.

Despite high expectations for the aircraft industry, by late 1917 it was evident that production would fall far short of program goals that called for over 22,000 airplanes, 44,000 engines, and enough spare parts to build another 17,600 airplanes.¹¹ As a result, investigations by several federal agencies looked into charges of corruption, but found nothing more than the incompetence normally associated with a government program of such immensity and overblown expectations. The failure of the World War I aircraft production program was perhaps the greatest disappointment of the war and demonstrated the "seemingly inherent wastefulness and uncontrollable costs of military aircraft production."¹²

1919-1926

In the eight years between 1919 and 1926, three major events shaped military aviation policy: the Army Reorganization Act of 1920, which made the Air Service a combatant arm of the Army; the Morrow Board in 1925, which recommended modest, though important, actions to improve American aviation; and the Army Air Corps Act of 1926, which enacted the findings of the Morrow board and replaced the Air Service with a more independent Army Air Corps (AAC). But the most pressing concern facing air leaders immediately after the war was the decimation of the Air Service caused by the chaotic demobilization of the armed forces.

¹⁰ Futrell, 19; Jacob A. Vander Meulen, *The Politics of Aircraft* (Lawrence, Kansas: University Press of Kansas, 1991), 22.

¹¹ Goldberg, 14.

¹² Vander Meulen, 39.

When the war ended, the air arm quickly felt the sting of demobilization. The Air Service, which had grown from less than 1,200 personnel in April 1917 to nearly 200,000 at the end of the war, shrank to 27,000 by June 1919.¹³ American combat groups disbanded leaving thousands of planes behind to burn in huge bonfires in Europe rather than having the government pay for shipping back to the United States. The aircraft industry, which boomed during the war, virtually collapsed overnight.

The aircraft production program during the war, inefficient as it was, had given the industry a tremendous boost. When the military cancelled its contracts after the armistice, aircraft production plummeted from over 14,000 in 1918 to only 263 in 1922.¹⁴ Unlike other industries that could return to postwar production of civilian products, the aircraft industry had no backup market. As a result, many aircraft manufacturers went bankrupt or consolidated with other companies to stay in business. Others got out of the aircraft business entirely. In most cases, those that did survive emerged stronger, but it was several years before the industry fully recovered from demobilization.

Meanwhile, due to the support generated by Mitchell's efforts, Congress passed the Army Reorganization Act of 1920 which established the Air Service as a combat arm of the Army. While the act did not go as far as air leaders hoped, it did give the Air Service control over research and development, procurement of aircraft and aviation equipment, and control of personnel and training functions. Mitchell also managed--over the opposition of the Army and Navy--to have a clause added to the appropriations bill that placed the Air Service in charge of all land-based aerial operations.¹⁵

¹³ Mauer Mauer, *Aviation in the U. S. Army, 1919-1939* (Washington, D. C.: Office of Air Force History, 1987), 3; Goldberg, 29.

¹⁴ John B. Rae, *Climb to Greatness* (Cambridge, Massachusetts: The Massachusetts Institute of Technology Press, 1968), 4.

Two additional high-level boards examined air power during this time and delivered recommendations that agreed in principle with Mitchell and his associates. On 22 March 1923, a board of General Staff officers under Major General William Lassiter met to consider a plan proposed by Major General Mason M. Patrick, Chief of the Air Service, that would grant greater autonomy, though not necessarily complete separation from the Army, to the Air Service. After hearing Patrick's plan, the Lassiter Board recommended creating an air force divided into three components: an observation air service attached to ground divisions, corps, and armies; an attack and pursuit air force attached to each field army; and an air force of bombardment and pursuit aircraft under the General Headquarters Reserve. This latter force would be assigned to strategic missions in support of ground operations or on missions completely independent of them. Although the Secretary of War approved these recommendations, they were never implemented. In October 1924, the House of Representatives, reacting to growing demands for a thorough review of national air policy, convened a board headed by Representative Florian Lampert to examine all aspects of American aviation. Before the Lampert Board could issue its final report (which recommended the creation of an independent air force), it was upstaged by the report of yet still another aviation board appointed by President Coolidge on 12 September 1925.¹⁵

As a result of charges leveled by Mitchell toward the Navy and War Departments, President Calvin Coolidge appointed Dwight W. Morrow, an Amherst classmate and respected New York banker, to head an aircraft board that would examine national air

¹⁵ Goldberg, 29.

¹⁶ Futrell, 42-49; Thomas H. Greer, *The Development of Air Doctrine in the Army Air Arm, 1917-1941* (Washington D. C.: Office of Air Force History, 1985), 26-27; Mauer, 72-73.

policy and present recommendations for improving the use of military aircraft in national defense.¹⁷ The Morrow Board held extensive hearings involving over 100 witnesses from all areas of the military including General Mason Patrick, Chief of Air Service; Colonel Benjamin D. Foulois, the Army's most experienced pilot; Major Henry "Hap" Arnold; and of course, Mitchell. General Hugh A. Drum, representing the General Staff, expressed the consensus of those who opposed the Air Service when he maintained that "the air power principle and its application as recently proposed by the Chief of Air Service . . . is unsound from a national defense viewpoint, as well as from purely Army considerations. At the present and so far as the future of aviation can be foreseen, air power has no function independent of the Army and Navy."¹⁸ The Morrow Board's report, published on 30 November 1925, concluded that the geographic location of the United States protected it from an overseas air attack and that "the belief that new and deadlier weapons will shorten future wars and prevent vast expenditures of lives and resources is a dangerous one which, if accepted, might well lead to a readier acceptance of war as the solution of international difficulties." It rejected the need for an independent Air Service and instead

¹⁷ On 5 September 1925, Mitchell, incensed by the futility of his efforts, charged the War and Navy Departments with "incompetency, criminal negligence, and almost treasonable administration" of the national defense after the disappearance of a Navy PN-9 aircraft and the crash of the Navy dirigible *Shenandoah*. These charges resulted in his court-martial and subsequent resignation from the Army. While beyond the scope of this thesis, the episode is nevertheless one of the most important chapters in the history of military aviation. Although many historians view Mitchell's conduct as setting back rather than promoting aviation interests, his actions, however misguided they sometimes were, succeeded in bringing the plight of military aviation to the public's attention. For an excellent account of Mitchell's court-martial see Burke Davis, *The Billy Mitchell Affair* (New York: Random House, 1967); for Mitchell's ideas see William Mitchell, *Winged Defense: The Development and Possibilities of Modern Air Power--Economic and Military* (Port Washington, New York: Kennikat Press, 1971) and Alfred F. Hurley, *Billy Mitchell, Crusader for Air Power* (Bloomington: Indiana University Press, 1975).

¹⁸ "Verbatim Report of Morrow Commission of Inquiry," in *Army and Navy Journal*, 26 September 1925, 4-7.

focused on increased recognition for air power without changing its traditional role within the Army. Finally, the board proposed additional aviation personnel allocations, a five-year plan of aircraft procurement, and that the name of the Air Service be changed to "Air Corps."¹⁹

The Army Air Corps Act of 1926 enacted the final recommendations of the Morrow Board into law. Besides elevating the status of Army aviation, it also established the position of assistant secretary of war for aviation, which gave the AAC more input into War Department decisions. More significantly, it authorized a plan to develop and expand the Air Corps over the next five years. On the surface it appeared that the Air Corps Act did little to change the nature of air doctrine, but it gave the Air Corps a chance to develop its strategic bombing doctrine. Air leaders believed that if they could hold on long enough, the steady improvement in aircraft technology would eventually develop the new bombers that they needed to prove their theories.

1926-1941

If nothing else, the creation of the Air Corps in 1926 temporarily silenced air leaders in their drive for independence. By 1933, their hopes had gradually given way to the realization that the development of a powerful offensive air arm based on strategic bombing was a much more important goal. There were still those who favored outright autonomy, but they were again held in check by the firm opposition of the War and Navy Departments. Two additional studies, one headed by Major General Hugh Drum in August 1933, and the other under former Secretary of War Newton D. Baker in April 1934, had reviewed the mission of the Air Corps with similar results. Both boards agreed

¹⁹ *Report of President's Aircraft Board* (Washington, D. C.: Government Printing Office, 1925), 7, 11, 14, 15-21.

that there was no need for a separate air force and that the main role of aviation was the support of ground operations. More importantly, they also recommended the establishment of a General Headquarters (GHQ) Air Force "made up of all air combat units, trained as a homogeneous force and capable of either close support or independent action."²⁰ In implementation, the War Department created the GHQ Air Force with headquarters at Langley Field, Virginia, as a tactical unit of the Army on 1 March 1935. GHQ Air Force was a great disappointment to the many airmen who had hoped for an independent air force. Yet, it was a great improvement over the previous organization, and it put into place a framework from which a long-range bombing doctrine could be developed, tested, and eventually deployed.

With Drum and his ilk in control of the War Department, the move toward strategic bombardment doctrine was a gradual process. Because of the lack of bomber aircraft available during and immediately after World War I, air doctrine emphasized pursuit aviation. By 1926, however, the early developmental period of national aviation policy and military aviation technology had ended, old stocks of aircraft and parts used up, and new research and development had begun to produce aircraft that could support strategic bombing doctrine.²¹ Subsequently, the struggle to develop and deploy the long-range bomber marked the history of the Air Corps in the years leading up to World War II.

Although the five-year expansion plan mandated by the Air Corps Act of 1926 never fully materialized because of the great depression, Army aviation still made important gains in the acquisition of new bomber aircraft in the early 1930s. The first of these were the Boeing B-9 and the Martin B-10, both of which were twin-engined, all-metal

²⁰ Greer, 73.

²¹ Futrell, 61.

monoplanes with retractable landing gear. Almost as fast as the best pursuit planes of the period, the B-9 and B-10 raised the hopes of air power advocates, who now believed that the days of pursuit aviation were numbered. Next came the development of the B-17, a four-engined bomber that Boeing had first designed in 1933. Because of the B-17, which became the symbol of strategic air power for the Air Corps, experiments with much larger bombers followed. Aircraft that later developed out of these programs were the B-29 and the B-36. These developments, however, had not gone unnoticed, nor did they go unopposed by critics of strategic air power within the Army and Navy.

Fortunately for the Air Corps, President Roosevelt realized that much of Hitler's success at Munich in September 1938 was the result of the massive German rearmament program, and especially the powerful potential of the German Luftwaffe. Therefore, he moved to increase American aircraft production in order to improve the state of the Air Corps as well as to aid the French and British in improving their own air forces. In his State of the Union address on 12 January 1939, Roosevelt told Congress that "our existing [air] forces are so utterly inadequate that they must be immediately strengthened."²² Because of Roosevelt's concern about the state of American military aviation, the AAC began to take on increased importance and responsibility in national defense planning efforts as the United States prepared for World War II.

²² Quoted in Goldberg, 44.

CHAPTER I

1939-1947: WORLD WAR II . . . AND BEYOND

1939-1941: Mobilization and Organization

Under President Franklin D. Roosevelt, the nation's military aviation policy changed dramatically in the two years preceding World War II. Roosevelt, mindful of European developments, anticipated in the fall of 1938 that air power would soon play a decisive role in national defense policy. According to one of his advisors, the President "was sure then that we were going to get into war and he believed that air power would win it."¹ Roosevelt also believed that there was an intrinsic connection between foreign policy and air power--that the success of the former depended on the success of the latter.² Although constrained by the parochial structure of the defense establishment and limited defense budgets, Roosevelt nevertheless "worked to develop an efficient relationship between military and civilian air policies."³ This relationship emphasized aircraft research and development to "maximize technological improvement with a minimum in cost."⁴ Indeed, this was the legacy that Roosevelt passed to his Vice-President, Harry S. Truman, and with a few refinements, it was the policy that Truman pursued after the war. The advent of the atomic bomb in 1945 had convinced air power advocates that strategic air power was, after all, the "winning weapon," and they worked tirelessly to achieve that end.⁵

¹ Harry Hopkins, quoted in Goldberg, 43.

² John D. Mrozek, "Peace Through Strength: Strategic Air Power and the Mobilization of the United States for the Pursuit of Foreign Policy, 1945-1955" (Ph.D. diss., Rutgers University, 1972), vii-xii.

³ Ibid, 3-4.

⁴ Ibid.

Roosevelt had initiated the development of the Air Corps expansion program two months before he presented the plan during his State of the Union address on 12 January 1939. On 14 November 1938, Roosevelt called a meeting of his top advisors to discuss aircraft production and the potential applications of American air power. In what Major General Henry H. "Hap" Arnold, then Chief of the Air Corps, later called the "Magna Carta" of the Air Force, Roosevelt declared that airplanes were the weapons most likely to influence the activities of Hitler in Europe. The President further explained that the United States was responsible for the air defense of the entire western hemisphere. Therefore, he wanted long-range aircraft that could do the job. Then, much to the surprise of the ground and naval officers present, Roosevelt came out forcefully for the mass production of combat aircraft for the United States and its allies. According to Arnold, the President made it clear that he wanted "airplanes--now--and lots of them."⁶

Roosevelt's desired objectives were an army air arm of 10,000 planes by 1941, an actual annual production rate of 10,000 planes, and the capability to produce 20,000 per year at maximum production levels.⁷ To achieve these goals, he would ask Congress for up to \$500 million in his upcoming State of the Union address. Taken aback, the Navy and War Departments argued that if the Air Corps was to be enlarged, they would like the same consideration. Accordingly, when the General Staff reviewed the Air Corps expansion plan, the War Plans Division added a large buildup of ground forces to accompany the increase in aircraft procurement. In a similar move, the Navy asked for

⁵ Major General Thomas Farrell, quoted in Gregg Herken, *The Winning Weapon* (New York: Alfred A. Knopf, 1980), 178.

⁶ Henry H. Arnold, *Global Mission* (New York: Harper & Brothers, Publishers, 1949), 177.

⁷ Ibid, 179; Futrell, 91; Greer, 100.

more money to balance the apparently changing force structures of the other two services. Roosevelt quickly sensed that his initial plan was falling apart because of military parochialism. In a move that further dazed the War and Navy Departments, he decided instead to ask only for \$300 million--all for the Air Corps--in his State of the Union address. When Congress approved the resulting emergency Army air defense bill three months later, it increased Air Corps strength authorization to 5,500 aircraft from 2,320, and provided for the immediate procurement of 3,251 new planes to reach this level.⁸

Roosevelt's stunning endorsement of air power, together with the enactment of the Aviation Expansion Program in April, convinced the War Department that it had no choice but to reconsider current military air policy. On 23 March 1939, Secretary of War Harry H. Woodring assembled an Air Board under Arnold to study the role of the Air Corps within the context of current national defense policies, which now included hemispheric defense. In its deliberations, the board considered such matters as Air Corp's mission, doctrine, and procurement requirements. General George C. Marshall, who was now Army Chief of Staff, approved the board's report on 1 September 1939; Woodring endorsed it two weeks later. The report established for the first time a specific mission for the Air Corps. "Air Power is indispensable to our national defense, especially in the early stages of war," it stated, "Our aviation in peacetime, both its organization and its equipment, must be designed primarily for the application of Air power in the early days of war. The basis of Air Power is the bombardment plane."⁹ It went on to assert that a well-organized air attack could be slowed, but "rarely, if ever, entirely stopped by

⁸ Brown, 55; Futrell, 90-92; Goldberg, 43-44; Greer, 100-101.

⁹ General Henry H. Arnold, "Second Report of the Commanding General of the Army Air Forces to the Secretary of War," 27 February 1945, 93-95.

local defense" and that "the only reasonable hope of avoiding air attack is in the possession of such power of retaliation as to deter an enemy from initiating air warfare."¹⁰ The report prompted the completion of an Air Corps doctrinal manual that had been in the developmental stages for many years. The final version, published on 15 April 1940 as Army Field Manual 1-5, *Employment of the Aviation of the Army*, served as the guide for air operations when the United States entered World War II.

Fortunately for the aircraft industry, Roosevelt's decision to expand the Air Corps came at an opportune time. Although the Roosevelt administration had long supported the aircraft industry within the fiscal limits imposed by the economy the industry still suffered from a lengthy period of slow expansion. In 1939, aircraft manufacturers employed 64,000 workers, produced a total of \$280 million in aircraft, and ranked only forty-first among American industries.¹¹ The capacity of the industry was estimated at 15,000-17,000 aircraft per year.¹² There were only seven major aircraft firms in the United States, and two of those had plants that either had no orders or were nearly empty.¹³ The process put into place by Roosevelt's aviation program gave the aircraft industry a critical head-start in preparing for the task that lay ahead. As it turned out, the program had just begun when the President asked even more of the industry. In the spring of 1940, Norway, Belgium, the Netherlands, and France collapsed in the face of a powerful German military onslaught. On 16 May 1940, Roosevelt, sensing the right time to ask for "the largest possible emotional commitment to preparedness," appealed to

¹⁰ Ibid.

¹¹ Rae, 108.

¹² Ibid; Stekler, 9.

¹³ The seven major firms were: Boeing, Consolidated, Curtiss, Douglas, Lockheed, Martin and North American Aviation. Of these, Consolidated's plant was almost empty and Martin had no government orders. Stekler, 8.

Congress for 50,000 planes and the capacity to produce at least that many more each year.¹⁴ Congress agreed to provide whatever appropriations were necessary to equip the Air Corps with the planes that it needed. "All you have to do is ask for it," Senator Henry Cabot Lodge, Jr. assured Arnold when he appeared before Congress to justify Air Corps requirements in June 1940.¹⁵

The Air Corps gladly complied by quickly placing new aircraft orders and developing new plans for further expansion. To satisfy Congressional demands for specific requirements, the War Department asked for 18,000 planes by 1 April 1941 and a production capacity of 18,000 planes per year--just for the Army--by the same date. Secretary of War Henry L. Stimson, who had replaced Woodring in August 1939, continued the Roosevelt administration's strong commitment to air power. On 12 July 1940, Stimson approved the Army's First Aviation Objective. This program authorized the Air Corps to expand to 54 combat groups consisting of over 4,000 aircraft and 220,000 officers and enlisted personnel. The First Aviation Objective had barely begun when Arnold proposed another expansion of the Air Corps. Under the Army's Second Aviation Objective, which the War Department approved on 14 March 1941, the Air Corps would consist of 84 combat groups equipped with nearly 8,000 aircraft and manned by 400,000 officers and enlisted personnel.¹⁶

Initially, this level of expansion went far beyond the capacity of the aircraft industry to handle. Not only did the industry have to meet domestic military demands, but it also had to fulfill contracts for Great Britain and her allies as well. From a 1939 production level

¹⁴ Vander Meulen, 207.

¹⁵ Quoted in Goldberg, 48.

¹⁶ Futrell, 101-102; Goldberg, 48.

of 5,856 airplanes, the industry would eventually increase its output to a wartime peak of 96,318 in 1944 (see Table 3). This would require the building of several new plants and conversion of other heavy industries such as the automobile industry. Military planners had counted on a certain amount of plant construction, but never on such a large scale.

TABLE 1.--U. S. Aircraft Production, 1940-1945

Year	Aircraft		
	Total	Military	Civil
1940	12,804	6,019 ^b	6,785 ^c
1941	26,277 ^a	19,433 ^b	6,844 ^c
1942	47,836 ^a	47,836 ^b	^d
1943	85,898 ^a	85,898 ^b	^d
1944	96,318 ^a	96,318 ^b	^d
1945	49,961 ^a	47,714 ^b	^d

Source: U. S. Civil Aeronautics Administration, *U. S. Military Aircraft Acceptances, 1940-1945* (1946), 2-3.

^a Includes U. S.-financed aircraft manufactured in Canada

^b Includes military aircraft for Lend-Lease.

^c Includes domestic civil output only.

^d No production other than military.

For example, the Aviation Expansion Program had provided for the construction of seven government-financed aircraft plants, two of which would be put into operation, the remainder to be temporarily held in reserve.¹⁷ Notwithstanding, these early construction programs were not nearly enough to provide the production numbers that the military had in mind.

Not only did the industry have problems gearing up during the initial mobilization period, but it was also reluctant to commit resources to the vast expansion required of the

¹⁷ Futrell, 91.

rearmament effort. The experience of the aircraft industry after World War I had convinced many manufacturers that a huge expansion during wartime would result in a drastic cutback immediately afterwards. This, they believed, would cause large displacements and eventual bankruptcy for many companies during peacetime. Additionally, most companies simply did not have enough capital to finance the kind of expansion needed for the program. Because of this, the government typically provided credit for plant construction through the Reconstruction Finance Corporation or built the facilities at its own expense and leased them to individual companies. In the same way, the government increasingly assumed much of the cost of research and development for not only the aircraft industry, but most of the other war-related industries as well. NACA, for example, increased its expenditures on research from \$2.2 million in 1940 to \$24.1 million in 1945.¹⁸ The military services increased their research and development expenditures from \$26.4 million to \$513 million, although only part of that applied to aviation research.¹⁹ Finally, a new government bureau, the Office of Scientific Research and Development, spent \$114.5 million by 1945.²⁰

Despite increased government support, aircraft production during World War II faced the same procedural obstacles that undermined production during the First World War. To mitigate these problems, the government created two agencies to organize and coordinate production: the National Defense Advisory Commission in May 1940, and its successor, the Office of Production Management (OPM) in January 1941. While both agencies sought to smooth production bottlenecks, their actual authority to do so was

¹⁸ Stekler, 12.

¹⁹ Ibid.

²⁰ Ibid.

never clear. As a result, they were never truly effective and acted mainly in an advisory capacity. Nonetheless, the aircraft production effort was remarkably successful. All told, American industry managed to produce over 300,000 aircraft with an aggregate airframe weight of over 2 billion pounds during the war years.²¹ The war effort enabled the aircraft industry to rise from 44th in dollar value of output in 1939 to first in 1944.²² Although many new aircraft plants were built, manufacturers that had existed before the war and had expanded during it produced most of the wartime airframe weight. Also, it must be noted that while the industry excelled in all areas of aircraft production, production of heavy bombers stood out. Aircraft such as the B-29, B-17, and B-24 appeared in individual numbers that exceeded the combined total of all medium and light bombers.²³ This concentration on heavy bombers clearly illustrated the direction emphasized by air leaders during the war and portended the design of American air power afterwards.

As the Air Corps expanded, it underwent important changes in organizational and administrative structure. One major problem that faced air leaders on the eve of World War II was the dual command organization of Army aviation. All materiel and training functions came under the command of the Air Corps, while combat operations fell primarily under the auspices of GHQ Air Force. Both agencies reported separately to the Army chief of staff. In November 1940, Arnold assumed the office of acting deputy chief of staff for air. Simultaneously, he continued to serve as chief of the Air Corps. From this position he provided a sense of unity, direction, and coordination that previously had been lacking under the dual command organization. However, by the spring of 1941, it

²¹ Rae, 169.

²² Ibid.

²³ Ibid, 170.

became clear that the huge increase in Air Corps responsibility required an organizational structure that provided much more effective command and control.

Secretary Stimson decided in March 1941 that the air forces would be placed under one unified command and that "plans should be worked out to develop an organization staffed and equipped to provide the ground forces with essential aircraft units for joint operations, while at the same time expanding and decentralizing out staff work to permit air force autonomy in the degree needed."²⁴ In April, Stimson took the first step by appointing his special assistant for air matters, Robert A. Lovett, a former naval aviator during World War I, to the long-vacant post of assistant secretary of war for air. Soon afterwards, in a compromise between Marshall, Arnold, and Lovett that gave the air arm greater autonomy without separating it from the Army, the Air Corps Plans Division prepared a revision to Army Regulation (AR) 95-5, *Army Air Forces*. The revised AR 95-5, published on 20 June 1941, formally created the Army Air Forces (AAF). It organized the AAF into Headquarters Army Air Forces (commanded by Arnold), under which came the Air Force Combat Command (formerly GHQ Air Force), the Air Corps, and any other air units. The new regulation also provided an Air Staff to assist the AAF Chief with all matters concerning aviation and to form air policy. Although AR 95-5 was only an interim step, it was by far the first significant attempt toward air force autonomy since the formation of GHQ Air Force in 1935.²⁵

²⁴ Secretary of War Henry L. Stimson to Chairman, House and Senate Military Affairs Committees; quoted in Chase C. Mooney, *Organization of Military Aeronautics, 1935-1945* (Washington, D. C.: Air Force Historical Office, 1946), 19.

²⁵ Herman S. Wolk, *Planning and Organizing the Postwar Air Force, 1943-1947* (Washington, D. C.: Office of Air Force History, 1984), 20-22.

1941-1943: Plans and Reorganization

President Roosevelt indirectly gave the newly formed AAF its first major planning task on 9 July 1941. In response to a request by OPM for logistical information, the President asked the War and Navy Departments for an estimate of "over-all production requirements required to defeat our potential enemies"²⁶ On 11 September, the secretaries issued the Joint Board Estimate of United States Over-All Production Requirements. Complying with a request for assistance from the War Department in early August, the newly-formed Army Air Forces Air War Plans Division (AWPD) prepared the aviation requirements for the Joint Board Estimate. The AWPD, headed by Lieutenant Colonel Harold L. George, included Lieutenant Colonels Orvil A. Anderson and Kenneth N. Walker, and Majors Haywood S. Hansell, Hoyt S. Vandenberg, and Laurence S. Kuter, among others. In only nine days, George and the rest of his team, most of whom had taught at the Air Corps Tactical School at Maxwell Field, Alabama, presented a comprehensive document titled Air War Plans Division-1 (AWPD-1).

AWPD-1, according to one Air Force historian, "was a notable achievement, which marked both the apex of prewar air force doctrinal thought and a blueprint for the air war that would follow."²⁷ In producing the plan, the AWPD based its requirements on American-British Conversations-1 (ABC-1), a basic Anglo-American war plan and statement of strategic policies, and RAINBOW War Plan No. 5.²⁸ Aircraft requirements

²⁶ Franklin D. Roosevelt to Secretary of War, 9 July 1941; quoted in Futrell, 109.

²⁷ Futrell, 109.

²⁸ ABC-1 was the product of British and American military staff conferences which opened in January 1941. The purpose of these conferences was to establish principles of cooperation between the two nations if the United States entered the war. Approved in March, the most significant features of ABC-1 for air planners were (1) the European Theater would be the primary decisive theater and (2) American air resources would be used in collaboration with the Royal Air Force against German military power. The

for the strategic war against Germany (and afterwards Japan) included bombers such as the B-29, B-32, and B-36 that were still in the planning stages.²⁹ Total requirements contained in AWPD-1 were: 47 groups of heavy bombers (B-17, B-24); 24 groups of very heavy bombers (B-29, B-32); 44 groups of very long-range bombers (B-36); 54 groups of fighters; and 82 groups of ground support aircraft for a total of 251 groups consisting of 61,799 airplanes. Additionally, the plan required 37,051 trainer aircraft for a grand total of 98,850 airplanes.³⁰

The emphasis on bombers in AWPD-1 displayed the strategic air-mindedness of AAF planners. According to the plan, the air war in Europe would be offensive from the beginning. Generally, AWPD-1 discounted ground support operations and considered them only "if it becomes necessary to invade the continent."³¹ The planners believed that Hitler's invasion of Russia had placed an added strain on the socio-economic structure of Germany and that "destruction of that structure will virtually break down the capacity of the German nation to wage war."³² Thus, at that time, AWPD-1 represented the latest evolution of strategic bombardment doctrine. The main peculiarity of the plan, however, was the noticeable absence of fighter escort aircraft. Although it recommended that an escort fighter be developed as soon as possible, no such aircraft existed at the time, and the final plan did not include any that might be developed in the future.

provisions of ABC-1 were incorporated into a Joint Army-Navy war plan known as RAINBOW No. 5. This plan provided the basic guideline for planning American participation in World War II. Haywood S. Hansell, Jr., *Strategic Air War Against Japan* (Maxwell AFB, Alabama: Airpower Research Institute, 1980), 5-6.

²⁹ The B-32 was never built.

³⁰ Hansell, 6.

³¹ Entrell, 109.

³² Quoted in Joe C. Dixon, ed., *History of U. S. Air Power* (Maxwell AFB, Alabama: Air University, 1985), vol. I, *The Birth of Air Power, Wright Flyer to B-17*, 76.

Predictably, the Joint Board relegated AWPID-1 to an annex of the final report and reminded readers that "air forces and naval forces can render valuable assistance, but it can be accepted as an almost invariable rule that only armies can win wars."¹³ Nevertheless, AWPID-1 received approval at the highest levels and remained as the American air war plan going into World War II.

AWPID-1 had strengthened the argument for strategic bombing, but the War Department still needed organizational changes to ensure the proper exploitation of air power under the leadership of air officers. In October 1941, the War Department rejected a proposal by Brigadier General Carl A. Spaatz, chief of Arnold's air staff, that would have divided the Army into three separate but equal air, ground, and service commands. Arnold, stressing the need for unity of command, pushed for a similar plan in November 1941. The War Department agreed with Arnold in principle, but the Japanese attack on Pearl Harbor delayed any immediate action on his plan. In January 1942, Marshall assigned a committee under Major General Joseph T. McNarney of the AAF to consider and submit recommendations on the reorganization of the War Department. The result of McNarney's committee was War Department Circular 59, *War Department Reorganization*, published on 2 March 1942.¹⁴ One week later, the War Department reorganized yet again into three autonomous and coequal commands: the Army Air Forces, the Army Ground Forces, and the Services of Supply (later the Army Service Forces). However, because this reorganization was the result of an executive order under

¹³ Joint Board, J. B. no. 355 (serial 707), "Joint Board Estimate of United States Over-All Production Requirements," 11 September 1941, 10-15; quoted in Futrell, 112. See also Wesley F. Craven and James L. Cate, *The Army Air Forces in World War II* (Chicago: The University of Chicago Press, 1948), vol. 1, *Plans and Early Operations, January 1939 to August 1942*, 131-133; Greer, 123-126; and Hansell, 5-6.

¹⁴ Wolk, 26-27.

the terms of the First War Powers Act of 18 December 1941, the AAF would revert to its previous status six months after the end of the war.

Despite this condition, the provisions arranged by McNarney encouraged air leaders and gave them hope for future success. The reorganization disbanded the Office of the Chief of Air Corps, GHQ Air Force, and the Air Force Combat Command and merged them into the AAF under a single commanding general and single air staff. This not only gave the AAF responsibility for administration, supply, organization, and training of air combat units, but also granted the AAF quasi-autonomy. Arnold and his staff worked hard to prepare the air arm for eventual independence by taking over many logistical functions normally handled by the Army Service Forces, thereby making the AAF as self-sufficient as possible. Under Arnold's leadership, the standing of the AAF within the military establishment had grown tremendously as evidenced by his presence during the war as a member of the U. S. Joint Chiefs of Staff (JCS) and the Anglo-American Combined Chiefs of Staff. Arnold's membership in these two important decision-making groups represented a tacit understanding among the military and political leadership that air forces had finally become the equal of land and sea forces.

On 21 July 1943, the AAF received more formal recognition of its independent status with the publication of War Department Field Manual (FM) 100-20. Written by Kuter, now a brigadier general, and based on his experiences with ground and air operations conducted in Northern Africa, FM 100-20 supported centralized control of air power and stated that:

Land power and air power are co-equal and interdependent forces; neither is an auxiliary of the other. . . . the gaining of air superiority is the first requirement for the success of any major land operation. . . . Land forces operating without air

superiority must take such extensive security measures against hostile air attack that their mobility and ability to defeat the enemy land forces are greatly reduced.³⁵

While the authority for using air power within a specific theater of operations ultimately rested with the theater commander, FM 100-20 specified that he would "exercise command of air forces through the air force commander" and not normally "attach air units under his command."³⁶

FM 100-20 included, for the first time, the formal composition of air force combat units. For instance, the largest AAF tactical unit assigned to a theater of operations would be one air force composed of strategic, tactical, air defense, and air service units. The strategic air force, whose overall objectives and mission would be assigned by the theater commander, was designed to attack the enemy's war-making capability. The tactical (both offensive and defensive) air force would be further divided into command, division, wing, group, squadron, and flight.³⁷ In essence, FM 100-20 prescribed the tenets of centralized control of air forces in theaters of operation and served as the definitive War Department directive on employment of air power in joint operations until the end of the war.³⁸ For the AAF, FM 100-20 followed AR 95-5 as another step away from Army control. The Army Ground Forces, however, viewed it with less enthusiasm, calling it the "Army Air

³⁵ War Department Field Manual 100-20, *Command and Employment of Air Power*, 1943, 1-2.

³⁶ Ibid.

³⁷ Each of these units contained as follows: flight-two or more planes; squadron-three or more flights; group-three or more squadrons; division-two or more wings. An air command, which served as both a tactical and administrative support unit, would contain divisions, wings, groups, and any service elements required to support air operations. The basic AAF combat unit was the group, which consisted of three or four squadrons plus any needed support units. The group normally contained 35-105 aircraft and up to two thousand personnel. Note: the wing, which eventually replaced the group as a unit designation, served chiefly for tactical control. Wolk, 31.

³⁸ Ibid.

Forces' Declaration of Independence."³⁹ The AAF had made great strides toward autonomy and AAF leaders would not easily surrender these gains when the war ended.

1943-1945: World War II and Lessons Learned

The AAF began to test its strategic bombardment doctrine soon after building up sufficient forces in each operational theater. Flying from fields in Egypt, the AAF conducted its first bombing operations against the Ploesti oil fields in Romania on 12 June 1942. On 17 August 1942, the AAF flew its first missions from British bases against targets in France. Contrary to the Royal Air Force (RAF), which favored night bombing, the AAF practiced daylight precision bombing, relying on the quality of its bomber crews, the firepower of the B-17, and the accuracy of the top-secret Norden bombsight.⁴⁰ Soon, the RAF and AAF teamed up in the Combined Bomber Offensive (CBO), which involved night-bombing missions by the RAF and daylight missions by the AAF in a series of around-the-clock attacks on German targets. As the CBO continued, targets expanded to include German submarine facilities, aircraft plants, and ball bearing factories. These targets required much deeper penetrations into German territory that were well beyond the range of Allied escort fighters. Unfortunately, attacks on ball bearing plants at Regensburg and Schweinfurt in August 1943 dramatically proved, counter to American strategic bombardment doctrine, that long-range daylight bombing without fighter escorts

³⁹ Kent R. Greenfield, *Army Ground Forces and the Air-Ground Battle Team*, Army Ground Forces historical study 35 (n.p.: U. S. Army Ground Forces Historical Section, 1948), 47.

⁴⁰ Goldberg, 57. The Norden bombsight, when combined with the aircraft's Automatic Flight Control Equipment, revolutionized precision bombing for AAF crews. The device consisted of a telescopic sight and a mechanical calculator that computed bomb trajectories, allowing for the plane's speed, altitude, and drift. The sight was linked to the plane's automatic pilot; as the bombardier operated the sight, the sight controlled the aircraft, thereby eliminating human error to a large degree. Ronald H. Bailey, *World War II* (Alexandria, Virginia: Time-Life Books, 1979), vol. 8, *The Air War in Europe*, 88.

was prohibitively costly in aircraft and aircrews. During these raids, the AAF lost sixty out of 376 B-17s and many more sustained damage. Thus, a lack of escort fighters--the fundamental weakness of AWPD-1--had come back to haunt the AAF. By the spring of 1944, however, the CBO achieved more success when escort fighters became available in sufficient quantities and planners began limiting industrial targets. These factors enabled Allied bombers to launch effective mass attacks against chosen targets.

Yet, despite the success of the CBO, it was still unclear whether strategic bombing alone could defeat a nation by breaking its socio-economic structure as AWPD-1 had predicted. In September 1945, *The United States Strategic Bombing Survey* concluded that "Allied air power was decisive in the war in western Europe," but added that the German people "showed surprising resistance to the terror and hardships of repeated air attack." It also maintained that the Germans "continued to work efficiently as long as the physical means of production remained." Despite such ambiguity, air power enthusiasts could point to the conclusion of the *Survey* which stated: "The German experience suggests that even a first-class military power--rugged and resilient as Germany was--cannot live long under full-scale and free exploitation of air weapons over the heart of its territory." The jury on strategic air power remained divided.⁴¹

In the Pacific, delays in the development and procurement of the B-29 precluded strategic bombing of Japanese targets early in the war. Even after the AAF obtained the B-29, it was first necessary to secure forward bases to bring the bombers within reach of the Japanese mainland. Because of this, the first attacks against Japan did not take place until 15 June 1944, when 47 B-29s attacked the Yawata iron and steel works on Kyushu.

⁴¹ *The United States Strategic Bombing Survey*, "Over-all Report (European War)," 30 September 1945, 107-109.

Sustained operations did not begin until November 1944 and only then with indifferent results because of the slow buildup of force strength, lack of escort fighters, bad weather, poor bombing accuracy, and heavy losses of aircraft.⁴² Only when B-29s switched from high altitude bombing of factories to incendiary bombing attacks on large cities did the results begin to have a terrifying effect on the Japanese homeland. Since Japanese air defense was weak, these attacks went virtually unopposed and the bombers operated at low altitudes with increasing accuracy. On 9 March 1945, an attack on Tokyo destroyed nearly sixteen squares miles of the city and killed 84,000 people.⁴³ By August, Japanese production was negligible and many war industries were operating at less than twenty-five percent of capacity. By the end of the war, American bombers had dropped over 145,000 tons of bombs and had destroyed 105 square miles of six of Japan's largest industrial cities.⁴⁴ The Japanese had all but surrendered when atomic bombs destroyed Hiroshima and Nagasaki in early August.

In July 1946, *The United States Strategic Bombing Survey* of the war in the Pacific reached essentially the same conclusion that it had in Europe, that is "no nation can long survive the free exploitation of air weapons over its homeland." More importantly, it supported the AAF position that a future conflict would include the possibility of an atomic attack on the United States and that "the threat of immediate retaliation with a striking force of our own should deter any aggressor from attacking." Finally, the *Survey* stated its support for the creation of a third "air oriented" military establishment, equal to

⁴² Goldberg, 85.

⁴³ Futrell, 162-164; Goldberg, 83-87.

⁴⁴ Ibid.

the Army and Navy, for strategic attack, as well as "active and passive" defense of the United States.⁴⁵

What lessons did the AAF take from World War II? And what plans did the Air Force have for the postwar period? In conclusions drawn by General Arnold in his final report to the secretary of war on 12 November 1945, several issues were clear (at least to the AAF).⁴⁶ First, Arnold reminded the War Department that the ravages of modern war spared no one: "With present equipment," he maintained, "an enemy Air Power can, without warning, pass over all formerly visualized barriers or 'lines of defense' and can deliver devastating blows at our population centers and our industrial, economic or governmental heart even before surface forces can be deployed." Arnold believed that future attack against the United States would be "without warning" and that the Air Force with its "ability to reach any possible enemy without long delay" would be the first force to meet the enemy. Accordingly, if the Air Force engaged the enemy early enough, it could possibly "remove the necessity for extended surface conflict." No national security would be possible, continued Arnold, without a "modern, *autonomous* [emphasis mine], and thoroughly trained Air Force."⁴⁷

Second, citing the tremendous cost in lives, human suffering, and materiel as evidence of the nation's lack of preparedness for World War II, Arnold emphasized the importance

⁴⁵ *The United States Strategic Bombing Survey*, "Summary Report (Pacific War)," 1 July 1946, 27-32.

⁴⁶ Arnold presented several other conclusions that I do not mention. Among these were: Personnel and Training, Intelligence, New Concepts (guided missiles), Scientific Research and Development, Civil Aviation, and Public Understanding of Air Power. It is interesting to note that all of Arnold's concerns were later studied in depth by the Finletter Commission. See General Henry H. Arnold, "Third Report of the Commanding General of the Army Air Forces to the Secretary of War," 12 November 1945, 59-72.

⁴⁷ *Ibid.*, 59.

of maintaining a strong Air Force in peacetime. Stating that the government could assist in this by careful coordination and planning, he pointed out that "Military Air Power--or Air Force--is dependent upon the air potential provided by industry which, in turn, thrives best in an atmosphere of individual initiative, and private enterprise."⁴⁸

Third, Arnold's report confirmed the AAF's confidence in the validity of its strategic bombardment doctrine--with some modifications. The report explained that the real effect of American strategic bombing attacks, unlike tactical attacks, was "like that of cancer, producing internal decay ultimately resulting in death." Then, in an about-face from previous bombing doctrine, the report said that while the operation of the Air Force could no longer be considered limited in range, "long-range escort fighters, at one time considered impossible, are both practical and essential to bombing operations." Of course, Arnold emphasized the effect of atomic energy on strategic doctrine as well: "[atomic energy] has made Air Power all important," claimed the report, "Air power provides not only the best present means of striking an enemy with atomic bombs, but also the best available protection against the misuse of atomic explosives." Air Force doctrine, Arnold concluded, "must be flexible at all times and entirely uninhibited by tradition."⁴⁹

Lastly, Arnold emphasized that the greatest lesson of the war was the importance and need for more balance between the services in national defense responsibilities. He argued that

Unity of command is not alone sufficient. Unity of planning. . . , and unity of doctrines are equally necessary. In addition, ground, naval and air forces must each have an equal voice as well as an equal responsibility in all plans and policies.

⁴⁸ Ibid, 61-62.

⁴⁹ Ibid, 62-63, 67.

Maximum efficiency and economy cannot be attained when one type of force is subservient to another in planning or operational councils. The full capabilities of the subservient force will never be exploited efficiently and serious blunders are bound to follow.⁵⁰

Arnold concluded his report by stating plainly that maximum economy and efficiency would be obtained by ruthlessly eliminating "all arms, branches, services, weapons, equipment or ideas whose retention might be indicated only by tradition, sentiment or sheer inertia."⁵¹ Arnold's report served at once as a testimony to the performance of air power during the war, a prediction of its increased significance after the war, an attack on the parochialism of the Army and Navy, and a clear indication of Air Force priorities in the postwar period.

1943-1947: Postwar Plans

Two years before the end of World War II, the AAF began planning for its postwar future. By the summer of 1943, the AAF had two offices responsible for postwar planning: the Post War Division (PWD) of the Air Staff, Plans section and the Special Projects Office (which mainly worked demobilization issues) an independent agency reporting directly to Arnold. Between 1943-1946, these offices focused primarily on three distinct, but interrelated areas: legislative planning for armed service unification and Air Force autonomy; force level and deployment planning, which resulted in the establishment of the 70-group concept in 1945; and planning to organize the major commands within Headquarters Air Force.⁵² Of these three, the goal of Air Force autonomy was the most important. Planning for the other two areas was, in fact, dependent on and subordinate to the attainment of an independent Air Force. To make

⁵⁰ Ibid, 72.

⁵¹ Ibid, 72.

⁵² Wolk, 45.

matters worse, under the conditions of the First War Powers Act of December 1941, the AAF would revert back to a division of the Army six months after the end of the war. This, Air Force leaders determined, would not happen.

For all practical purposes, the drive for a single department of defense and autonomy for the Air Force were inseparable. Both began in April 1943 when Marshall instructed his General Staff to conduct a study of demobilization planning. One month later, the War Department's Special Planning Division (SPD) was created to review postwar organization plans. By October 1943, the SPD had recommended a single department of national defense headed by a secretary of war and four under secretaries representing ground forces, air forces, naval forces, and a common bureau of war resources. Arnold approved such a plan only if it would establish the Air Force as a coequal service with the Army and Navy, with an overall air commander and air general staff. In March 1944, the War Department outlined a unification plan before the House of Representatives Select Committee on Post-War Military Policy (the Woodrum Committee). Brigadier General Hansell testified that

those of us who have seen this war fought . . . realize that there is no place in modern war for a separate air force, for a separate army, or for a separate navy. The Army Air Forces advocate, and strongly recommend the integration of the nation's fighting forces into a single unified organization. Hence, our conviction demands unity rather than separation.⁵³

Other witnesses who agreed with Hansell included Assistant Secretary of War for Air Lovett, Secretary of War Stimson, and General Dwight D. Eisenhower.

The Navy, however, strenuously opposed unification on the grounds that it would weaken its longstanding tradition as the nation's first line of defense, undermine its

⁵³ Quoted in R. Earl McClendon, *Autonomy of the Air Arm* (Maxwell AFB, Alabama: Research Studies Institute, 1954), 133.

powerful political support, and take away both the Marine Corps and naval aviation.

Admiral John H. Towers admitted before Congress the true fear of many Navy leaders: "I fear--and I have good reason to fear," Tower stated, "that the Army Air Force advocates of a separate air force have well established in mind the plan, upon realization of a separate service, to absorb naval aviation. . . . Approximately 40 percent of our postwar Navy is aviation. Its loss would be completely disastrous to the Navy."⁵⁴

Finally, after nearly three years of give and take between the services, mainly the Navy against the Army and Air Force, the three services reached a satisfactory unification agreement. On 26 July 1947, President Truman signed the National Security Act that, among other things, created a Department of Defense and an independent United States Air Force (USAF). Truman then nominated James V. Forrestal, the former secretary of the navy, as the first secretary of defense; W. Stuart Symington, who had succeeded Lovett as assistant secretary of war for air in 1946, became the first secretary of the air force. These two men became key players in the drama surrounding postwar aviation policy.

For the AAF, the other major planning concern during its drive for independence was the establishment of a postwar force structure. From 1945 onward, the AAF and then the USAF, maintained that 70-groups was the minimum needed to ensure the national security of the United States. Air planners reached this number after a series of perplexing calculations that within a time span of two years developed and discarded four previous plans before settling on the 70-group air force. The evolution of this enigmatic force structure plan is one of the more interesting sagas of the postwar period.

⁵⁴ Ibid, 11-21.

The PWD based its original plan for the postwar air force on the War Department's initial plan to keep 1,700,000 men on active duty in the Army after the war. With these requirements in mind, on 8 November 1943, Arnold directed Major General Lawrence Kuter to prepare a study of postwar air force requirements. In December 1943, Kuter proposed, and Arnold approved, an initial plan that contained 105 groups consisting of 40 very heavy bombardment, two heavy bombardment, four medium and light bombardment, 45 fighter, three reconnaissance, and 11 troop carrier groups. Personnel requirements for this plan included 530,000 officers and enlisted men. It is important to note that 87 of these groups were devoted to the strategic bombing mission, as the 45 groups of fighters were intended to act as escorts for the 42 groups of long-range bombers. Before the PWD sent this plan, known as Initial Postwar Air Force-1 (IPWAF-1), to the War Department in February 1944, it had added a proposed personnel increase of 470,000 that would bring AAF strength to 1,000,000 men. Arnold approved IPWAF-1 on 5 February 1944. Kuter, the original architect of the plan described it as a large force "according to former peacetime standards, and large in proportion to the conventional concepts of ground forces and naval establishments, but it is what we foresee will be needed to keep us out of a new war during the initial period of peace."⁵⁵

When the War Department requested a smaller plan that assumed a peacetime limit of 700,000 Air Force personnel, the PWD responded with PWAF-2. Completed on 14 July 1944, this plan assumed a postwar Air Force of 75 groups, 685,000 men, and the existence at some unspecified time in the future of an international security organization to promote peace and regulate armaments. The War Department accepted PWAF-2 and

⁵⁵ Futrell 203-205; Perry McCoy Smith, *The Air Force Plans for Peace* (Baltimore: The Johns Hopkins Press, 1970), 54-74; Wolk, 45-79.

integrated the plan into its overall postwar troop estimate of 1.7 million men on 11 August 1944.⁵⁶

When Marshall reviewed the War Department's troop estimate, the projected cost of \$7 billion for the combined Army and Air Force postwar budget astonished him. On 13 November 1944, he ordered the SPD to reassess postwar strength using the following guidelines: a balanced budget, a volunteer force, and Universal Military Training for all otherwise qualified young men. Under the new parameters supplied by Marshall, AAF planners figured that the new postwar force structure would allow only 16 groups and 120,000 men. Not surprisingly, the AAF rejected this and sent a memorandum to the War Department registering its opposition to the reassessment report that the SPD had sent to Marshall on 27 December 1944. Additionally, the AAF reverted to the position that its 105 group program would be used as its postwar force structure for planning purposes. Even so, the AAF developed contingency plans for both a 75-group and 16-group air force.⁵⁷

By the spring of 1945, the AAF had discarded the 105-group plan and developed a new 78-group plan that assumed a personnel total of 638,286 men. This new plan, called "The Interim Air Force," was the first attempt by now Major General Lauris Norstad, who had replaced Kuter as the assistant chief of air staff, plans, to downsize the immediate postwar air force to bring it more in line with the size of the permanent air force that he hoped to achieve. A variation of this scheme, called the "V-J Plan," was developed in July 1945 by the AAF Special Projects Office in conjunction with a mobilization proposal

⁵⁶ Ibid.

⁵⁷ Ibid.

that used the 78-group point as the limit for AAF demobilization. The V-J Plan was the first and only postwar force structure plan not developed by the SPD.⁵⁸

As the postwar budget picture became clearer, the War Department turned down the 78-group air force as financially impracticable. Moreover, in the summer of 1945, Truman ordered each military service to reassess their postwar requirements. "This review," explained Truman, "should consider our international commitments for the postwar world, the development of new weapons, and the relative position of the services in connection with these factors."⁵⁹ As a result, Arnold's chief of air staff, Lieutenant General Ira C. Eaker, along with General Carl A. "Toohy" Spaatz, Lieutenant General Hoyt S. Vandenberg, and Norstad set out to fix the peacetime force structure of the AAF. On 28 August 1945, they proposed a "bedrock minimum strength" of 70 groups with approximately 400,000 personnel for the postwar air force. This 70-group force would include 21 very heavy bomber, five light bomber, 22 fighter, three all-weather fighter, nine strategic and tactical reconnaissance, and 10 troop carrier groups, plus 22 separate specialized squadrons. In addition, 27 Air National Guard and 34 Air Force Reserve groups would back up the regular force. Essentially, the 70-group program was the

⁵⁸ Ibid.

⁵⁹ Harry S. Truman, *Memoirs*, Vol. 2, *Years of Trial and Hope* (Garden City, N. Y.: Doubleday & Company, Inc., 1956), 48.

105-group program cut to the bare minimum.⁶⁰ In any case, the 70-group figure would have a lasting impact on the plans and policies of the postwar Air Force.

The United States Air Force, which had begun its campaign for autonomy nearly forty years earlier, now emerged as an independent and seemingly powerful military force for the Cold War climate of the postwar period. American reaction to the Cold War represented a radical expansion of national security and foreign policy goals while simultaneously placing a high premium on a powerful postwar military structure. Accordingly, postwar defense planners tried to build a national military establishment that not only supported the worldwide responsibilities demanded by this new role, but one that also exploited the superior industrial power, technological capability, and air atomic weapons advantage enjoyed by the United States. Thus, for American military planners and policy-makers, the early postwar period was a time of critical decision-making processes that hinged on the ability of the aircraft industry to support effectively the mobilization requirements of the nation's armed forces. Unfortunately, by the spring of 1947, it became clear that many postwar assumptions regarding the aircraft industry were wrong. This would have a profound impact on the development of military air policy and the design of American air power in the ensuing years.

⁶⁰ Futrell, 204; Also interesting is the perspective taken by Smith. "The key figure of 400,000 men was the number of men the AAF planners and personnel experts anticipated could be recruited and maintained on a strictly volunteer basis. All assumptions about various contingencies and all the various plans based on alternative assumptions . . . were now irrelevant. The bargaining skill of the AAF planners was manifested in their choosing two round, easy-to-grasp figures and also in their refusal to deviate by one group or one man from them. . . . Toward the end of 1945 the planners, realizing that a 70-group figure was simple for Congress and the people to grasp, and recognizing also that 400,000 was a figure which budget cutters could more easily whittle down, talked more about '70-groups' than about 400,000 men." Smith, 73.

CHAPTER II

"OUR NEW MORROW BOARD—THE WHITE HOPE OF AMERICAN AVIATION"

Overview: Factors Affecting Postwar Military Air Policy

As World War II began drawing to a close in the spring of 1945, the *Harvard Business Review* reminded President Truman and the members of Congress that they had an "inescapable responsibility" for not only winning the war, but doing so in such a manner that would "guide the country into a sound peace."¹ The article warned that ". . . our continued leadership in air power is threatened by the absence of either an adequate, up-to-date national air policy or a consistent plan of action," and argued that continuing such a policy could result in economic and military disaster for the nation.² Finally, it suggested that the President appoint a body "similar . . . to the Morrow Board" composed of "unbiased men of recognized national stature" to formulate a consistent policy for air power.³

Of course, despite such exhortations, the successful conclusion of the war remained Truman's top priority. Afterwards, however, he faced a world situation that seemed to threaten American national security at every turn and that demanded a posture of military preparedness that increasingly relied on strategic air power as its backbone. Although deeply concerned about the future of American aviation--especially in relation to national

Lynn L. Bollinger, Tom Lilley, and Albert E. Lombard, Jr., "Preserving American Air Power," *Harvard Business Review*, Spring 1945, vol. 23, no. 3, 372.

¹ Ibid.

² Ibid. 392.

defense--Truman first had to resolve a myriad of insistent foreign and domestic issues before turning his attention to the development of a national air policy. Only then did the President demonstrate his concern for aviation by appointing his Air Policy Commission in the summer of 1947.

At the end of World War II the United States emerged as the most powerful nation on earth. In terms of economic strength, natural resources, industrial power, technological capability, and military might, the United States stood clearly superior to its closest rival: the Soviet Union. Despite their wartime alliance, the ideological differences between the two nations gradually eroded into an antagonistic and ultimately dangerous postwar relationship. President Harry S. Truman realized that American national security depended not on a withdrawal from world affairs, but on a much larger involvement. Consequently, for the United States, the postwar period required discarding the old "isolationism" that had characterized its foreign policy for decades and facing up to the challenges presented by an expanding role in the international community. Success in this new era in American foreign policy depended on a strong military base. This, in turn, led to an unprecedented buildup of strategic air power and an increased reliance on the atomic bomb as the decisive weapon for the seemingly inevitable conflict with Russia. W. Barton Leach, former chief of the Operations Analysis Division of the Army Air Forces, exemplified the increasing focus on the Soviet Union when he wrote in February 1947: "If we have war it is going to be with Russia," but "if we have no war with Russia we shall have no war at all for at least two decades."⁴

⁴ W. Barton Leach, "The Bear Has Wings," *Air Force Magazine*, February 1947, 17-19.

Despite the lessons taught by previous conflicts, the United States chose to base its postwar security not upon a full range of military capabilities, but upon the perception of power inherent in possessing and having used atomic weapons in war. At the end of 1945, the American public, tired of the long war and anxious to bring the soldiers back home, called for a rapid demobilization of the armed forces. In spite of vows not to repeat past mistakes, Washington ordered combat units to be quickly deactivated, often without regard to postwar necessity or mission. As a result, billions of dollars worth of planes, ships, and equipment were abandoned or left to deteriorate in storage areas. In the spring of 1946, *The U. S. News and World Report* observed that the United States was "breaking all records for speed in demobilizing its military power." Moreover, the article pointed out that "wartime strength is so far dissipated today that if anybody should call for a showdown, or if war should break out suddenly in a trigger-happy world, the United States would be in a precarious position."⁵

Unfortunately, but not entirely unforeseen, the aircraft industry experienced a less severe, but still significant repetition of the post-World War I situation. The government canceled over \$21 billion worth of aircraft contracts by the end of 1945 and only 16 of 66 wartime airframe plants remained in operation.⁶ From a wartime peak of \$16 billion, which represented one-tenth of the country's national income in 1944, aircraft sales plummeted to approximately \$1 billion in 1947.⁷ And in the ten month period from March 1945 to January 1946, military aircraft production fell from 7,053 to 161 planes

⁵ "America's Military Decline: Where We'd Stand in a Fight," *U. S. News and World Report*, July 1946, 22-23.

⁶ Rae, 173.

⁷ National Planning Association, *National Policy for Aviation* (Washington D. C.: National Planning Association, 1946), 60.

per month.⁸ Unlike World War I, however, government and industry had anticipated these production cutbacks. The Contract Settlement Act of 1944 set up procedures by which contract cancellations would cause the least disruption for wartime industry. This act provided for the gradual phase out of war contracts, a large reduction in the amount of unused inventories, and government assistance in reconverting to peacetime production.⁹ Also, since the government had financed the largest portion of the wartime expansion and owned several aircraft plants, the aircraft manufacturers experienced a less debilitating financial shortfall.

Nonetheless, despite an initial jump that *Fortune* called the "end of the boom, not its beginning," the expected demand for civilian aircraft failed to materialize, thus placing the aircraft industry at the mercy of government military contracts.¹⁰ The National Planning Association, an independent organization established in 1934 to develop "constructive national policies," noted in its report on "National Aviation Policy" in March 1947 that "aviation has become a force of such far-reaching effect on world security and economic development, and on our own strategic position and domestic economy, that its development is one of the most important questions confronting this nation."¹¹ The Aircraft Industries Association of America, the industry's lobby group, reported early in 1948 that "whether we like it or not, the health of the aircraft industry, for the next few years at least, is dependent largely upon financial support from Government in the form of orders for military aircraft."¹² While Truman had not ignored this situation, he attached

⁸ Ibid, vii.

⁹ Rae, 173.

¹⁰ "Shall We Have Airplanes?" *Fortune*, January 1948, 158.

¹¹ National Planning Association, 1.

¹² Aircraft Industries Association of America, "Aircraft Manufacturing in the United States," in *The History of the American Aircraft Industry, an Anthology*, ed. G. R.

more immediate importance to the development of a viable postwar national security policy.

The Truman administration prepared a national security policy that attempted to balance the pressing needs of the United States as it returned to peacetime normalcy with the economic and military outlays required to protect Western Europe--the area that postwar American policymakers considered critical to national security--from Soviet advances. This new concept of "containment," articulated in 1947 by career foreign service officer and Soviet expert George Kennan, relied on a patient, hard-line diplomatic approach toward the Soviet Union. It also required a military strong enough to deter the Soviets from attempting to broaden their influence in Western Europe or anywhere else deemed strategically important by the Truman administration. In theory, this demanded a departure from the traditional American policy of mobilizing during national emergencies in favor of maintaining large military forces-in-being. In practice, however, the fiscal limits imposed by Truman's efforts to balance the postwar budget deficit forced national security policy again to depend on a combination of "the old strategy of mobilization and the new strategy of deterrence" as its *modus operandi*.¹³

Throughout the postwar period, strategic air power emerged as the foundation from which mobilization could successfully be accomplished, while simultaneously acting as a powerful deterrent to potential aggressors. In the eyes of policy-makers and private citizens alike, the indelible images created by the fiery destruction of enemy cities by strategic bombing offered convincing proof that air power would be the key to success in

Simonson (Cambridge, Massachusetts: MIT Press, 1968), 191.

¹³ Armos A. Jordan, William J. Taylor, Jr., and Lawrence J. Korb, *American National Security: Policy and Process* (Baltimore: The Johns Hopkins University Press, 1989), 60.

future "all-out" wars. After World War II, Air Force leaders enthusiastically promoted air power and its role in such conflicts. One author concluded in the *Air University Quarterly Review* that "in the event of another war our first and perhaps only major offensive effort will be strategic air attacks."¹⁴ Air Force leaders were not alone as their views enjoyed wide support from both the public and the press. *The New York Times*, prompted by the success of the Army Air Forces during the war and the development of the atomic bomb near the end, prophesized that "the era of continental bombing is with us."¹⁵ This concept took on even more significance when combined with the general belief that the Soviet Union would not acquire an atomic capability for many years, thus giving the United States a monopoly on weapons of mass destruction.

In a rather ironic twist, the dual purpose of strategic air power as a means of fighting future conflicts *and* as a means of preventing them allowed the Air Force to take the leading role in national defense strategy. Accordingly, strategic air power became the primary symbol of American military strength in the postwar period. Not only did public confidence in strategic air power grow, but this confidence in turn also largely contributed to the success of the Air Force in its longstanding movement for independence from the Army. Even after independence, public confidence in the Air Force continued to soar. A Gallup Poll published on 15 October 1949 asked "If the United States should get into another World War, which branch of the armed forces do you think would play the most important part in winning the war--the Army, the Navy or the Air Force?"¹⁶ The response

¹⁴ Lieutenant Colonel Frank R. Pancake, "The Strategic Striking Force," *Air University Quarterly Review*, no. 2 (Fall 1948): 15-26.

¹⁵ *The New York Times*, 8 October 1946.

¹⁶ *The Washington Post*, 15 October 1949.

indicated that 74 percent of the American public believed that the Air Force would play the most important role in future conflicts.¹⁷

Nevertheless, there was a dark side to this success. Although the National Security Act of 1947 granted the Air Force the autonomy it had so badly wanted, the law also magnified the bitter infighting that had been going on among the services for years, especially between the Air Force (generally supported by the Army) and the Navy, over the roles each would play in national defense policy. Shortly before Truman signed the National Security Act, General Spaatz, who would become the first chief of staff of the Air Force, penned a memorandum to then Assistant Secretary of War for Air Stuart Symington in which he alluded to the tenseness of the situation. "Do you realize," Spaatz wrote,

that in accepting our new jobs and in the event of war with Russia, we will be hanged as war criminals if we lose?

There had better be some real honest to God thinking about what we need to avoid being on the losing side.

The U. S. has already set the pace for the atomic bomb, strategic bombing, and hanging war criminals.

This is no time to temporize very long with old established prerogatives of the Services, nor to tolerate inter-Service rivalry, friction, [and] jealousy. Whoever does not cooperate should be obliterated.¹⁸

While no one was "obliterated," Secretary of Defense James D. Forrestal did force the services to find a solution to their problems. In a meeting at Key West, Florida, in March 1948, the Joint Chiefs of Staff tentatively agreed on the roles of each service. The Key West agreement gave the Air Force sole responsibility for maintaining air superiority,

¹⁷ The results were as follows: Air Force - 74%; Army - 6%; Navy - 4%; Other - 16%; Ibid.

¹⁸ Memo from General Carl A. Spaatz, Commanding General, Army Air Forces, to Stuart Symington, Assistant Secretary of War for Air, no date, Box 4, Declassified Documents, Symington Papers, Truman Library.

defeating enemy air forces, and for carrying out strategic air warfare.¹⁹ While each of these functions guided the development of Air Force strategy, the prevailing doctrine of strategic bombing naturally placed more emphasis on the latter. Although critics argued that strategic bombing had not been nearly as effective as Air Force leaders believed, supporters of the doctrine held that air power "had made a major if not decisive effect on the war."²⁰ Indeed, to most Americans, who remembered only Hiroshima and Nagasaki, the atomic bomb made strategic bombing a much more convincing doctrine. Air Force Generals Henry "Hap" Arnold and Curtis LeMay saw the atomic bomb as the weapon that would revive the "discredited theories of Douhet and de Seversky after the war" by providing air power the "ability to project great destructive power at considerable distances."²¹ Thus, after World War II, the Air Force found itself fully committed to the strategy of strategic bombardment. Air leaders believed that strategic air power would deter--and if that failed--decide future conflicts. Furthermore, air power seemed the least expensive method to carry out national security objectives within the framework of a limited defense budget.

¹⁹ Philip S. Meilinger, *Hoyt S. Vandenberg, the Life of a General* (Indianapolis: Indiana University Press, 1988), 309.

²⁰ Harry R. Borowski, *A Hollow Threat* (Westport, Connecticut: Greenwood Press, 1982), 20-21.

²¹ Herken, 314. Alexander de Seversky was once a tsarist military pilot and later became an inventor, airplane designer, and aircraft producer in the United States. As the most outspoken proponent of air power before, during, and after World War II, de Seversky had predicted in his book *Victory Through Air Power* (1942) that long-range aircraft would eventually end the protective isolation enjoyed by the western hemisphere. He maintained that military forces "cannot and must not dream of conquering the enemy without first capturing dominance in the air--but once we have clear-cut dominance in the air, all else becomes a secondary subordinate, auxiliary operation." Alexander de Seversky, *Victory Through Air Power* (New York: Simon and Schuster, 1942), 26. See also Futrell, 167-172.

As an avid fiscal conservative, Truman believed that military spending required strict control after the war. The President's earlier Congressional experience had convinced him that the military wasted billions of dollars. Still, Truman and Congress recognized the need to provide enough money for an adequately prepared military--within certain limits. After the war, Truman had imposed a \$15 billion ceiling on defense expenditures. In fact, from 1947 to 1950, actual national defense outlays were never more than \$13.12 billion, which the service branches more or less divided equally among themselves.²² While Truman favored Universal Military Training (UMT) to ensure military preparedness, Congress favored expanding the Air Force's strategic air power capabilities through the acquisition of more aircraft (primarily strategic bombers) and personnel.

Even before the war ended, the Air Force had pushed for a force structure comprised of seventy combat air groups--this despite numerous confrontations with the other service branches and the relative scarcity of funds. "The end product of the entire AAF," Spaatz stressed in a letter to his AAF commanders dated 24 October 1946, "is the Seventy Group Program. Major effort in each command must be directed to support this objective."²³ The seventy-group Air Force, for which Air Force leaders vigorously campaigned, also received the enthusiastic backing of Congress. Symington, then Secretary of the Air Force, later recalled that when the budget went below the amount needed for seventy groups, "I protested to the Bureau of Budget and the Secretary of Defense. The Congress picked up our protest. Many Senators and Congressmen were close to some generals and

²² United States Department of Commerce, Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970*, vol. II (Washington, D. C.: U. S. Government Printing Office, 1975), 874. It should be noted that the initial budgets often were higher, but cost cutting by the Budget Bureau kept actual expenditures lower.

²³ Letter from General Carl Spaatz to all commands, 24 October 1946, AFSHRC 168.16-1.

admirals. . . . [since] They had appointed a lot of them. So there was no reason why they could not register their protest with influential members of the House or Senate Armed Services or Naval Affairs Committees. That was done plenty."²⁴ In early 1948, the Congressional Aviation Policy Board (CAPB) emphatically stated in the preface to its report on national aviation policy that the United States needed "air power that is supreme." Moreover, the board also believed that "the capability of the United States most likely to discourage an aggressor against attack upon this Nation, most effective in thwarting such an attack if launched, and most able to deal out retaliation to paralyze further attack, is air power."²⁵

As Symington implied, because the Navy retained strong political support after World War II, the ensuing military budget battles led to the most controversial and acrimonious altercations in the history of the American armed forces. This dispute, sometimes called the "revolt of the admirals," culminated in October 1949 with a series of hearings by the House Armed Services Committee to investigate the cancellation of the navy supercarrier, the *United States*; Air Force acquisition of the B-36 bomber; and the morality of atomic warfare policy.²⁶ This public spectacle, which featured accusations and attacks by the Navy hierarchy upon the Air Force, resulted from the bitter fight for scarce defense budget dollars, as well as the continuing unrest over the role of each service in national defense policy.²⁷ The committee's report concluded with noticeable uncertainty that "with

²⁴ Oral history interview, Stuart Symington, April 1967, 35, Truman Library.

²⁵ U. S. Congress, Congressional Aviation Policy Board, *National Aviation Policy* (Washington, D. C., 1948) 80th Cong., 2nd sess., 3-4.

²⁶ U. S. Congress, House, Committee on Armed Services, *Unification and Strategy. Report of Investigation*. 81st Cong., 2d sess., 1 March 1950.

²⁷ For a thorough account of this episode see Paul Y. Hammond, "Super Carriers and B-36 Bombers: Appropriations, Strategy and Politics," in *American Civil-Military Decisions*, ed. Harold L. Stein, (Tuscaloosa, Alabama: University of Alabama Press,

[Air Force and Navy] views so sharply opposed, both services cannot be right; the committee suspects that both are right--and that both are wrong. . . . It is a sad fact that neither can be proved right or wrong except through the supreme test of actual war and the nature of the peace that follows."²⁸

The Push for a National Air Policy

Besides military appropriations, the most important issue during this whole process was the underlying movement by government and industry to reach a consensus on military air policy. As air leaders discovered, it was one thing to base national security policy on strategic air power, but it was an entirely different and more difficult proposition to plan for and put such a program into place. Simply stated, a series of more complex questions had to be answered. For example: Why was a military air policy necessary? What was the ultimate purpose of this policy? What should be done about the malaise of the aircraft industry? What kind of industry would be needed to produce the types and numbers of aircraft the military deemed necessary for supporting national security policy? Were these military requirements valid? Who would produce these aircraft? When would they be available? How much would such a program cost? What enemy would this policy be directed toward? And most importantly, how would this program affect the nation as a whole? In its evaluation of the military situation in September 1947, the Aircraft Industries Association explained to its members why a national air policy was so crucial:

Rapid development of new weapons during World War II, new strategic and tactical concepts, shrinkage of the world in terms of time and space factors, have outmoded the air policy which still forms the foundation of American aviation

1963), 463-567.

²⁸ *Unification and Strategy, Report of Investigation*, 33.

development. Twenty years of revolutionary changes make it imperative that a strong foundation of air forces, air commerce and air industry be maintained to guard against sudden and overwhelming attack.³⁹

Truman understood this. He had considered the postwar problems of the aircraft industry, including the need for a national air policy, long before he appointed his temporary Air Policy Commission. Truman's own active military experience had been limited to a tour in France during World War I as an artillery captain, but during his first term in the United States Senate in 1941 he studied the problems of military aviation as the chairman of a Senate committee charged with investigating fraud, waste, and abuse in the national defense effort. His work with the "Truman Committee" not only familiarized him with aviation issues, but also provided him with national exposure and much-needed experience in dealing with "all important aspects of war mobilization."⁴⁰ As President, Truman showed a keen awareness of the relationship between the aircraft industry and national security. In a letter to the secretaries of War and the Navy on 8 August 1945, Truman wrote: "It is vital to the welfare of our people that this Nation maintain development work and the nucleus of a producing aircraft industry capable of rapid expansion to keep the peace and meet any emergency."⁴¹ Truman's increasing cognizance of military aviation during and after World War II, combined with his postwar presidential responsibilities, moved him to take a closer look at formulating a national air policy in the

³⁹ Aircraft Industries Association, *Background Information on the President's Temporary Air Policy Commission and the Joint Congressional Air Policy Board* (New York: Hill & Knowlton, Inc., 1947), 5.

⁴⁰ Bert Cochran, *Harry Truman and the Crisis Presidency* (New York: Funk and Wagnalls, Inc., 1973), 114.

⁴¹ Quoted in George A. Brownell, "The Air Coordinating Committee--A Problem in Federal Staff Work," reprinted from the *Journal of Air Law and Commerce* 14 (Autumn, 1947): 421. Also in Air Coordinating Committee, *Report of the Subcommittee on Demobilization of the Aircraft Industry* (Washington, D. C., 11 October 1945), 3.

summer of 1947. Even before Truman seriously began to consider aviation policy, other individuals and organizations had already given it a high priority.³²

As early as the summer of 1943, then Undersecretary of the Navy Forrestal had met with top officials of United Aircraft, the nation's largest aircraft corporation, to persuade them to delay deliveries of planes to the government in order to alleviate a developing problem with surplus aircraft production. After the United officials agreed to Forrestal's proposal, the subject changed to the postwar situation of the industry. Eugene Wilson, president of United, remembered that Forrestal wanted someone in the aircraft industry to develop a long-term conversion plan for the industry. Wilson, suggested Forrestal, was a good choice to do this.³³

Wilson agreed, and later began the process of revitalizing the aircraft industry's lobbying body, the Aeronautical Chamber of Commerce of America (later the Aircraft Industries Association), which had slowed its activities considerably during the war. Wilson's work resulted in a concerted effort by the aircraft industry to promote the establishment of a presidential commission to organize a structure for postwar aviation policy. By the autumn of 1944, both Congress and the Navy backed the creation of a

³² Truman used the "Morrow Board Report" to study earlier air policy problems and recommended solutions. As early as August 1945, Truman had written the Office of Mobilization and Conversion expressing "concern for the future of the aircraft industry." In fact, he was determined not to repeat the mistakes of World War I and believed that a failure to maintain adequate peacetime aircraft production would effect both the nation's ability to react to future world situations and result in "major problems within the aircraft industry." Memo from Harry S. Truman to John Snyder, 8 August 1945, OF 249, Miscellaneous, Truman Papers, Truman Library; See also Donald E. Wilson, "The History of President Truman's Air Policy Commission and its Influence on Air Policy, 1947-1949" (Ph.D. diss., University of Denver, 1979), 3-10.

³³ Lynn Rachele Eden, "The Diplomacy of Force: Interests, the State, and the Making of American Military Policy in 1948" (Ph.D. diss., University of Michigan, 1985), 224-226. See also Eugene E. Wilson, *Slipstream: The Autobiography of an Air Craftsman* (New York: McGraw-Hill, 1950), 262.

presidential air policy commission. Strangely enough, the main opposition to such a commission was the AAF itself. The AAF reasoned that by directing attention away from its attempt to obtain independence from the Army, it would lose support for its goal of autonomy after the war. Once the provisions of the upcoming National Security Act settled the issue of independence, Air Force leaders agreed in May 1947 that an air policy commission was a good idea.¹⁴

For Truman, the most influential government agency to press for a national air policy during the postwar years was the Air Coordinating Committee (ACC). In fact, to many government officials, it "held the key to the United States air policy."¹⁵ The ACC was the product of a joint interdepartmental memorandum signed on 27 March 1945 by acting Secretary of State Joseph C. Grew, Secretary of War Stimson, Secretary of the Navy Forrestal, and Secretary of Commerce Henry A. Wallace. It was comprised of representatives from the AAF, the Civil Aeronautics Board (CAB), and the State, Post Office, Navy, and Commerce Departments, and served as a clearing house to address civil and military aviation issues. Although the ACC originally had no statutory power to enforce aviation policy, Truman issued executive order No. 9781 on 19 September 1946 to give the committee formal authority to "develop and recommend integrated policies to be carried out and actions to be taken by the participating agencies or by any other government agency charged with responsibility in the aviation field."¹⁶ At this point, the ACC began to take an increasingly larger role in national aviation policy and included in

¹⁴ Eden, 224-226.

¹⁵ Wilson, 10.

¹⁶ Quoted in Brownell, 418.

its organization three divisions, each responsible for problems falling under the technical, economic, and industrial areas of aviation respectively.³⁷

By far, the most important study undertaken by the ACC was that of its Subcommittee on Demobilization of the Aircraft Industry. This report, which the subcommittee presented to the main committee on 11 October 1945, focused on three areas: the design of superior replacement aircraft for the peacetime air units of the armed services; the maintenance of American technological leadership in aeronautics through continued research and development; and the ability of the aircraft industry to expand rapidly to meet the mobilization requirements of future emergencies.³⁸ In its study, the subcommittee used as its guiding principle the assumption that the United States would "never again dare to permit research and development to lag behind the march of scientific progress."³⁹ The final recommendations in the report emphasized the importance of maintaining an aircraft industry that could rapidly produce modern aircraft in large numbers. Ironically, although the ACC approved the report and it would later be used extensively by the CAPB and Finletter Commission to reach air policy decisions, its recommendations were never implemented.⁴⁰

Meanwhile, the plight of the aircraft industry continued to deteriorate. By early 1947, industry representatives (mainly the Aircraft Industries Association) urged the ACC to address the situation again. The ACC complied by creating a special "Working Committee on the Aircraft Industry" that, with the Research Institute of Stanford University, began a complete revision of the 1945 report. Additionally, Garrison Norton,

³⁷ See chart in Brownell, 420.

³⁸ Air Coordinating Committee, 4.

³⁹ Ibid.

⁴⁰ Wilson, 30; Brownell, 422.

the chairman of the ACC, sent Truman a letter expressing deep concern over the nation's lack of an air policy. In his letter, dated 16 June 1947, Norton discussed the condition of the aircraft manufacturing industry and recommended that Truman appoint a board of impartial citizens to study the relationship of the industry to the national security and welfare.⁴¹

"Our New Morrow Board"

On 17 July 1947, Truman responded to Norton's letter: "Your recommendation seems to me well taken. I have, therefore, appointed an Air Policy Commission with the request that it make an objective inquiry into our aviation policy in its broadest aspects." After requesting a copy of the ACC's revised report for the new commission, Truman said that he was "deeply appreciative of the fine work which your Committee has done in calling to my attention the present condition of the aircraft industry and in carrying forward the compilation of Government aviation policy."⁴²

Considering the pressure placed on the President by interested parties both inside and outside of the government, the appointment of a presidential commission to study aviation policy had long been a forgone conclusion. Still, the timing of Truman's action begs the question of why he moved to establish the commission when he did. The answer is probably threefold. First, Truman truly believed that the government needed to take action to improve the anemic condition of the aircraft industry. Second, he respected the recommendations of the ACC, whose authority he had increased only one year earlier. Finally, the President was well aware of the intentions of the Republican-controlled

⁴¹ Ltr from Garrison Norton to the President, 16 June 1947, OF 249, Truman Papers, Truman Library.

⁴² Ltr from President Harry S. Truman to Garrison Norton, 17 July 1947, OF 249, Truman Papers, Truman Library.

Congress, who were in the process of putting together their own aviation inquiry board. Rather than let Congress get credit for taking action on such a highly-publicized issue, Truman may have decided to "upstage the efforts of a Republican-dominated Congress."⁴³

As expected, just five days later, Congress, which had first considered the formal establishment of a National Air Policy Board in the spring and summer of 1946, also acted to study the problems associated with the aircraft industry and aviation policy.⁴⁴ On 22 July 1947, because of the "general concern over national security and the threatened bankruptcy of the aircraft industry and civil air carriers of the United States," Congress passed H. R. 3587 which established the CAPB.⁴⁵ Truman approved the legislation on 30 July 1947, thus creating a second body charged with examining national aviation problems and policy. *The Washington Post* observed that "President Truman has stolen a march on Congress by appointing a five-man air policy board. We hope that this will not be considered a rebuff on Capitol Hill. . . . Certainly, there is no room for pique or injured feelings in view of the broad job that must be done. . . . The facts on our deteriorating aviation industry are alarming enough to warrant close scrutiny both in and out of Congress."⁴⁶ In view of public sentiment, Truman had played all the right cards by appointing his own commission.⁴⁷

⁴³ Wilson, 41-42.

⁴⁴ Although the Senate Committee on Interstate Commerce reported favorably on the bill, no action was taken because of the press of last-minute legislation; Aircraft Industries Association, 2.

⁴⁵ The Congressional Aviation Policy Board, which first met on 15 September 1947, issued its report on 1 March 1948. Senator Owen Brewster (R., Maine) chaired the board and Representative Carl Hinshaw (R., California) served as vice chairman. *National Aviation Policy*, 1.

⁴⁶ *The Washington Post*, 27 July 1947.

⁴⁷ The situation with the presidentially-appointed Finletter Commission and the CAPB bore a remarkable resemblance to that of the Morrow and Lampert Boards over twenty years earlier. See Chapter 1.

Although the similarities between both commissions were striking, the public impact of each was quite different. Generally, the purpose, investigation, and conclusions of the Finletter Commission and the CAPB were nearly identical. Yet, military historians generally consider the work of the Finletter Commission by far the most significant attempt to develop a national air policy in the postwar period. For the most part, this was because the CAPB issued its report two months after the Finletter Commission's report, had used virtually the same witnesses, source documents, and transcripts that the President's commission had used in making its recommendations, and did not carry the greater prestige of being a presidential commission. There was also a more subtle, but critical difference between the two: the members and staff of the Finletter Commission were adept at keeping its work in the public eye. They realized early on that a positive public relations effort was critical to the success of the commission and made great efforts to publicize its investigation in every available medium. Consequently, the military air policy recommendations of the Finletter Commission carried a far greater weight than those of the CAPB. For the American public, the Finletter Commission's apocalyptically titled report, *Survival in the Air Age*, validated the goals and beliefs of air pioneers like Mitchell, Arnold, Spaatz, and LeMay. In essence, *Survival in the Air Age* confirmed that the Air Force had finally come of age and that strategic air power was now the first line of defense for the United States.

In *The President's Commissions*, Frank Popper points out that "often a President acknowledges the public's concern about a problem by expressing his own concern" and that technical commissions "enable the White House to show the general public--or, more often, specialized groups--that a problem is being closely watched."⁴⁸ He goes on to say

that the "most useful contributions" are made by those commissioners "who have the greatest sense of urgency about the commission's topic."⁴⁹ In the case of the Finletter Commission, this was especially true.

Truman's letter of appointment to each member of the commission clearly conveyed the importance that the President placed on their work and explained exactly what he expected from each of them. It acknowledged that modern technology had made many American aviation concepts obsolete and reiterated the potential danger to national security and economic welfare. "There is," explained Truman, "an urgent need at this time for an evaluation of the course which the United States should follow in order to obtain, for itself and the world the greatest possible benefits from aviation."⁵⁰ Therefore, he continued, the purpose of the Air Policy Commission was to examine national aviation policies and problems and assist him in "formulating an integrated national aviation policy."⁵¹ The President insinuated that the relationship between military and civilian aviation was particularly crucial and that the commission should study such areas as the utilization of commercial aircraft by the armed services; the capability of the aircraft industries to support national defense requirements; and ways of encouraging research and development. Finally, Truman ordered the commission to submit its recommendations by 1 January 1948. Accordingly, to do all that Truman wanted, his staff had to choose commission members who were credible, qualified, and competent.

⁴⁸ Frank Popper, *The President's Commissions* (New York: Twentieth Century Fund, 1973), 9.

⁴⁹ Ibid., 28.

⁵⁰ President's Air Policy Commission, *Survival in the Air Age* (Washington, D. C.: Government Printing Office, 1948), v.

⁵¹ Ibid.

At first glance, Thomas K. Finletter seemed an improbable choice for chairman of the commission. Once described by a journalist "as American as the First National Bank on the corner and twice as plain," Finletter himself admitted in an interview years later that he did not know why he was selected for the commission.⁵² He thought, however, that since Truman was looking for an open-minded individual, he fit the description because he had no pre-conceived notions and "came to it [the commission] with no pre-judgements."⁵³

A resident of New York and member of the Pennsylvania and New York bars, Finletter had practiced law since 1920. From 1917-1919, he had served as an officer in the U. S. Army, eventually rising to the rank of captain. In 1939, as a partner of the prestigious Wall Street law firm of Conder Brothers, Finletter had overseen the legal aspects of the sale of several hundred American military aircraft to France. During World War II, he was appointed special assistant to the secretary of state and also worked in the State Department's Office of Foreign Economic Coordination. After the war, Finletter served as consultant to the U. S. delegation to the United Nations Conference on International Organization in San Francisco and returned to Conder brothers. Interestingly, Finletter was, or had once been, a member of the United World Federalists (an organization advocating one world government) and had written an article for the *Saturday Review of Literature* in June 1945 that labeled the atomic attack on Hiroshima a "mountainous blunder."⁵⁴ Nevertheless, Finletter was well-respected in Washington circles. He was a

⁵² Albert Douglas, "The Inconspicuous Mr. Finletter," *Harper's* (April 1951), 49-56; Interview, Thomas K. Finletter, February 1967, 2, USAF Oral History Program, K239.0512-760, AFSHRC.

⁵³ Finletter Interview, 2.

⁵⁴ Finletter's alleged membership in the United World Federalists became a point of contention for several conservative organizations, most notably, the Veterans of Foreign Wars. Truman, however, disregarded Finletter's past views on government and military policy. Biographical Materials, President's Air Policy Commission (PAPC) Files,

Democrat, he had some knowledge of the aircraft industry--although he had taken no position on postwar aviation issues--and he had a reputation as a thorough and efficient organizer.

A more likely member with an extensive practical knowledge of the aircraft industry was Vice Chairman George P. Baker. A resident of Massachusetts, Baker had taught economics, history, and government at Harvard off and on from 1928-1947. At the time of his appointment to the commission, he was professor of transportation at the Harvard Graduate School of Business Administration. From 1940-1942, Baker was a member and vice-chairman of the CAB. He had served in the Army during World War II as a colonel in the General Staff Corps, and later worked with Arnold on his Air Staff as Chief, Industrial Demobilization Division, Special Projects Office from 1944-1945. Afterwards, he took over as director of the Transport and Communications Policy Division in the State Department until 1946 when he left government service and returned to Harvard.⁵⁵

The third member of the commission was Palmer Hoyt, publisher of the *Denver Post* and perhaps the most well-respected newspaperman in the western United States during this time. A resident of Denver, he had been in the newspaper business throughout his career, starting first with the *East Oregonian* in Pendleton, Oregon, where from 1923-1926 he was sports and telegraph editor. In 1926, he transferred to the *Oregonian* in Portland and became publisher in 1938. During World War II, Hoyt served for a time as director, Domestic Branch, Office of War Information. He maintained a personal

Truman Library: Eden 226-27; Norman Cousins and Thomas K. Finletter, "A Beginning for Sanity," *Saturday Review of Literature*, 15 June 1946, 5-6.

⁵⁵ Biographical Materials, PAPC Files, Truman Library.

interest in aviation and had written on the subject periodically for several years. Hoyt also sat on the board of directors of the Associated Press.⁵⁶

As President of the prominent Wall Street firm of Dun & Bradstreet, Inc., Arthur D. Whiteside, the oldest member of the commission, provided expert business and financial advice. Also a resident of New York, his career in government dated from the First World War where he served both on the War Trade and War Industries Boards. At the end of the war, Whiteside represented these boards at the Peace Conferences in London and Paris. He later served as an advisor to the National Recovery Administration and during World War II became director of the Civilian Supply Division, War Production Board.⁵⁷

The last original member was Henry Ford II, president and director of the Ford Motor Company. Ford worked with the commission until late September 1947 when he resigned ostensibly due to business matters. Baker later asserted that Ford quit on the advice of an insider in Washington. According to Baker, Ford's advisor apparently convinced him that since two bodies (the CAPB and the Finletter Commission) were examining air policy, political manipulations would make the work of either commission meaningless, therefore, Baker claimed, "he resigned."⁵⁸ In any case, Ford continued to work unofficially with the commission by occasionally critiquing ideas and providing information and suggestions directly to Finletter.

John A. McCone, who had been serving as the commission's advisor for national security matters, replaced Ford on 27 September 1947. A resident of Los Angeles,

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid; Oral history interview, George P. Baker, December 1977, 54, Truman Library.

McCone was an engineer and the president of Joshua Hendy Iron Works. He had formerly been president of Bechtel-McCone, a large firm that operated the Army Air Force Modification Center at Birmingham, Alabama during World War II. Through his work at Bechtel-McCone, he had experience in the design and construction of oil refineries, power plants, and chemical plants all over the world. McCone's former company also organized and owned the California Ship Building Company of Los Angeles, the Marinship Corporation of San Francisco, and the Oregon Ship Building Company of Portland, Oregon.⁵⁹

Finally, after two years of sidestepping the issue of establishing a national aviation policy, Truman now had the personnel in place to resolve, or at least recommend solutions to this well-publicized problem. For the members of the commission, their work was just beginning. The President had placed tremendous responsibility on their shoulders and not only he, but the American public was anxious to see what they would propose. In late August 1947, *The Washington Post* observed that "the past year has seen a succession of plans and counter-proposals, and a rash of overlapping probes carried on by all manner of agencies."⁶⁰ Calling for a "clean slate" to "give air power a fresh start under broad new policies backed by the entire nation," the *Post* praised the five members of the Finletter Commission as Americans "of outstanding ability--all from outside Washington official life--to do the vital job. . . . Here was our new Morrow board--the white hope of American aviation."⁶¹

⁵⁹ Biographical Materials, PAPC Files, Truman Library.

⁶⁰ John C. Norris, "We Have Two Boards, Now We Need an Air Policy," *The Washington Post*, 31 August 1947.

⁶¹ Ibid.

CHAPTER III

THE COMMISSION GOES TO WORK: PREPARATIONS, VISITATIONS, AND HEARINGS

Organizing and Staffing the Commission

Shortly after Truman appointed the members of his air policy commission, chairman Thomas Finletter and vice-chairman George Baker met in Washington to lay the foundation for the commission's upcoming activities. Although the President had asked them to look at both civil and military aviation policy, Finletter and Baker agreed during this initial meeting that military aviation would be given priority. With national attention focused on the commission, both men were fully aware of the significance of their task and understood the implications of their recommendations--especially in the area of national security. Finletter later recalled that "we concerned ourselves with civilian and military air power, but I think it's more accurate to say that our major emphasis was on the military side. And the reason was that the military side was more important then because of atomic power." Now, with the main emphasis of the commission firmly established in the minds of its chairmen, it was necessary to complete preliminary activities as soon as possible in order to meet the final report deadline of 1 January 1948.

With a tentative plan of action developed by Finletter and Baker, the five members of the Finletter Commission were sworn in shortly before noon on 29 July 1947 in the office of the secretary of commerce. Afterwards, they met for the first time in one of

¹ Interview, Thomas K. Finletter, February 1967, 2, USAF Oral History Program, K239.0512-760, AFSHRC.

several rooms set aside for their use in the Commerce Department building. Since his meeting with Baker, Finletter had met with key government officials to discuss potential aviation issues that would most likely come before the commission. Therefore, when the meeting opened, he began by reporting on his conversations with Secretary of War Kenneth C. Royall, Secretary of the Navy Forrestal, Under Secretary of State Robert A. Lovett, Assistant Secretary of State for Air (and chairman of the ACC) Garrison Norton, Director of the Budget Bureau James E. Webb, Secretary of Commerce W. Averell Harriman, and Under Secretary of Commerce William C. Foster. Finletter pointed out that while these conversations were mainly informative in nature, they had also served to secure the cooperation of these departments during the commission's tenure. He suggested that all departments had indicated their desire to cooperate in every way.²

The most important item on commission's agenda during this first meeting was the assembly of its staff. Typically, the staff of a presidential commission consists of three main elements: the executive director, the subordinate staff, and the consultants.³ Of the three, the most critical is the job of executive director because the person holding this position is responsible for recruiting of the subordinate staff as well as the smooth operation of day-to-day activities. Finletter originally had hoped to get Archibald Cox, professor of law at Harvard, but Cox was unable to obtain a leave of absence for the entire five months that the commission would meet. The commission then turned to S. Paul Johnston, director of the Institute of Aeronautical Sciences in New York. He accepted the commission's offer on 30 July and was sworn in on 11 August.⁴

² Minutes, 29 July 1947, PAPC Files, Truman Library.

³ Popper, 21.

⁴ *Survival in the Air Age*, 158.

This selection proved to be an excellent choice. Johnston had a long and distinguished career in aviation. After graduating from the Carnegie Institute of Technology with an engineering degree in 1917, Johnston had joined the Army Air Service as an aviation cadet. He completed flight training in November 1918, just as World War I ended, then he returned to Carnegie for additional study in mechanical engineering. Johnston went on to M.I.T. where he graduated in 1921 with a degree in mechanical engineering with aeronautical specialization. He then worked for six years as the chief engineer with the Curtiss-Wright Corporation. In 1928, Johnston became the assistant editor at *Aviation* magazine where he spent nearly twelve years, eventually becoming editor. In December 1939, he became Coordinator of Research for NACA. Three years later, he left NACA to take the position of western manager of the Curtiss-Wright Corporation where he remained until he was called to active duty with the Naval Transport Service in the Pacific. After being transferred to Europe, he worked with the U. S. Strategic Bombing Survey for Europe and later Japan. Johnston proved to be an essential component of the commission staff because he combined a diplomatic and insightful manner with superb administrative skills. These attributes not only contributed to the commission's efficiency, but also to its thorough and comprehensive analysis of aviation problems.⁵

Besides selecting its executive director, another major issue discussed by the commission during this meeting was a proposed division of work that gave each member two areas of prime responsibility. As commission vice chairman, Baker assumed the task of assigning each member two areas of specific concentration based on their particular expertise. The first draft of this plan included the following assignments: (1) national

⁵ Biographical Materials, PAPC Files, Truman Library; Wilson, 51.

security matters, Finletter and Baker; (2) air transport and private flying, Ford and Whiteside; (3) aircraft industries matters, Ford and Whiteside; (4) government organization and procedures, Hoyt and Baker; and (5) legislative matters (Baker explained that this area would include "educating the public, anticipating public reaction, and legislative approval of recommendations in the final report."), Finletter and Hoyt.⁶ Although the commission later would replace this last category with research and development in its final report, it nevertheless remained a critical factor in the commission's remarkable success with Congress and the public. With this one exception, the other areas changed little between the first meeting and the published report nearly five months later.

As part of this initial plan, Baker proposed that each main area would be headed by a "unit director" or advisor, an authority in his field who would work under the direction of the commission and the executive director. As previously mentioned, John A. McCone, who later replaced Ford on the commission, served as advisor for national security matters. Each of the four other advisors were also highly-qualified experts whose behind-the-scenes activities were crucial to the commission's investigation.⁷

Edward S. Prentice, a special assistant in the Aviation Division of the State Department, served as advisor in charge of civil aviation (air transport and private flying in the original draft). Prior to World War II, Prentice, a Harvard graduate, had worked with the Bureau of the Budget as an economic analyst. During the war he served as an AAF pilot and returned to the Budget Bureau after his discharge. In 1946, he went to the Department of State where he was the technical secretary to the United States Delegation

⁶ Minutes, 29 July 1947, PAPC Files, Truman Library.

⁷ Ibid; Biographical Materials, PAPC Files, Truman Library.

to the First Assembly of the International Civil Aviation Organization held in 1947. His intricate knowledge of current government aviation policy played a key role in shaping the commission's recommendations regarding commercial and private aviation issues.⁸

The commission choose Charles H. Colvin, an aeronautical consultant, to head aircraft industry matters. Colvin's longtime association with the design, development, and production of aircraft and aviation instruments went back to 1914 when he joined the Curtiss Aeroplane & Motor Company at Hammondsport, New York, after graduating from college. Before starting his own aeronautical laboratories in 1933, he had worked with the Sperry Gyroscopic Company from 1914 to 1919 and the Pioneer Instrument Company from 1919 to 1932. From 1941 to 1945, Colvin had advised and directed various aeronautical research projects with New York University, the U. S. Navy Bureau of Aeronautics, and the Polytechnical Institute of Brooklyn. He belonged to several engineering and aeronautical societies and enjoyed a superb reputation among the entire aviation community.⁹

As advisor for government organization and procedures, Richard F. Cook, special assistant to Garrison Norton, the assistant secretary of state for aviation, had previously worked in six different federal agencies in his fourteen-year career. His experience included assignments as the assistant director and executive officer, Office of Transport and Communications; principal economist and executive assistant, Office of the Quartermaster General, War Department; branch manager and chief of Organization and Procedures Division, Federal Crop Insurance Corporation; and acting comptroller and chief of Procedures and Methods Section, Agriculture Adjustment Administration, among

⁸ Biographical Materials, PAPC Files, Truman Library.

⁹ Ibid.

others. Cook's vast knowledge of transportation issues, as well as governmental policy regarding them, made him an ideal choice for this position.¹⁰

Heading up the commission's research and development unit was the nation's first aeronautical engineer, Grover Loening.¹¹ With thirty-seven year's experience in all manner of aviation that included an assistantship with Orville Wright, Loening also had served as the chief aeronautical engineer in the AAC during World War I. After the war, he organized his own company and produced aircraft for more than fifteen years. Loening retired from manufacturing in the early 1930s after his company merged with Curtiss-Wright. He then acted as a consultant for aircraft companies, airlines, financial institutions, and the U. S. government. During World War II, Loening served as aircraft advisor for Donald Nelson, chairman of the War Production Board. Additionally, he worked for both the AAF and the Navy reviewing plans for postwar military air development programs. In 1945, Loening became head aircraft consultant for NACA, the position he held at the time of his selection by the Finletter Commission. With the appointment of Loening, the last unit advisor selected, the commission had filled all of its key advisory positions. Working closely with Johnston, the commission then recruited and organized virtually all of its remaining staff by the middle of August. (A complete organizational chart is contained in the Appendix)¹²

¹⁰ Ibid.

¹¹ Loening earned the first aeronautical engineering degree given at an American university from Columbia in 1910.

¹² Ibid; *Survival in the Air Age*, 158. See Appendix for the final organizational structure of the Finletter Commission.

Procedures and Preparation

The commission concluded its first meeting with discussions on how to keep the members informed of activities and progress, the format of the final report, and press relations. In addition to daily meetings of members who happened to be in Washington (the commission recognized that it would be impossible and unnecessary for each member to be present at every meeting), memoranda and telephone calls, the commission would decide major policy issues at regularly scheduled meetings on Wednesday of each week. As for the final report, Finletter believed that it would most likely resemble the Universal Military Training Report, "A Program for National Security," published by the Compton Committee earlier in the year. Under Finletter's plan, each advisor, under the direction of Johnston and the responsible commission members, would gather data and provide a broad outline of issues to prepare the commission for subsequent hearings in each of the five main areas. Another important duty of the advisors was to recommend potential witnesses and filter inquiries and proposals from individuals who wished to testify before the commission. Along these lines, the commission agreed that most of its work would be done primarily in executive session with the possibility of public hearings as the work neared completion. The commission also agreed that a press relations officer would not be necessary and decided to refer all contact with the press to the chairman.¹³

In the next few weeks, the commission met regularly to prepare for the upcoming hearings and resolve issues dealing with the final report. On 30 July 1947, it discussed whether to include a liaison from each of the three services as full time advisors. Finletter believed, and the others concurred, that the Air Force and Navy should be included, but

¹³ Minutes, 29 July 1947, PAPC Files, Truman Library.

not the Army.¹⁴ This decision demonstrated the mistaken assumption that the National Security Act had cleared up the confusion surrounding aviation in the armed services. In fact, as the commission would find in its own hearings and as later events proved, the roles, missions, and budget appropriations of each service were yet to be decided.¹⁵

On 12 August, Finletter told the commission that while he was satisfied with its initial progress, he wanted each unit to start immediately writing portions of the report for discussion and comment by the staff. This would help the commission prepare questions and justifications for its position during the upcoming hearings. He further believed that "although the final report should be formal, it should not be such dry reading that the intelligent citizen would become weary struggling through it."¹⁶

The question of whether the hearings would be public or private was brought up again at a meeting on 18 August. After some discussion, the commission agreed that the hearings would be public "as long as they were conducted in a dignified way and 'no nonsense' was involved."¹⁷ On all matters concerning the military services, however, or if a testifying individual wished, the hearings would be held in executive session. This would permit the witness to edit or delete any testimony that might be classified or that he did not want released to the public.¹⁸ Finletter also declared that the hearings would initially involve only selected witnesses. If time permitted, other individuals who wished to testify would be given the opportunity. Before appearing, witnesses would be given a

¹⁴ Minutes, 30 July 1947, PAPC Files, Truman Library. Brigadier General Bryant L. Boatner, Deputy Chief of Air Staff, was chosen as the commission's Air Force Liaison officer.

¹⁵ Wilson, 56-57.

¹⁶ Minutes, 12 August 1947, PAPC Files, Truman Library.

¹⁷ Minutes, 18 August 1947, PAPC Files, Truman Library.

¹⁸ Minutes, 11 August 1947, PAPC, Truman Library.

list of "subjects" and broad areas that the commission wished to cover. All witnesses before the commission were required to provide statements in advance.¹⁹

As Finletter and Baker earlier had decided, the future needs of American military aviation were the primary concern of the commission. Early in September, the commission met to consider its role in determining the force structure of Air Force and Navy aviation. After a long discussion, the commission decided that its job was not so much to plan for Air Force needs in the far distant future, but to "figure out among other things what kind of Air Force is needed for that part of the future which has an immediate bearing on the present."²⁰ This statement, while somewhat vague, showed that the postwar international situation had given the commission a sense of urgency to devise a strategic force structure that would enable the United States to deter and retaliate against enemy aggression in the near term. Baker saw the plan as "the only way you could preserve the peace," but Finletter worried that "... nobody was willing, really, to believe that there was going to be any real danger from anybody else. The country was not alive to that at this time."²¹ As a result, making the public aware of the international situation, as well as the commission's perception of its affect on national security, became an essential task.

On 9 September, an interesting discussion ensued that demonstrated the commission's public-relations awareness. In response to Ford's question of "why are press relations important," the other members indicated a desire for the public to know "what the Commission is, what they are trying to do and how they are trying to do it, that as such

¹⁹ Ibid: *Survival in the Air Age*, 160.

²⁰ Minutes, 8 September 1947, PAPC, Truman Library.

²¹ Oral history interview, George P. Baker, December 1977, 52, Truman Library; Interview, Finletter, 7.

time as the report might be made public, it would be received more favorably."²²

Furthermore, "it would clarify in the minds of the public the differentiation between this and other commissions or boards which may be working on the same lines."²³ Also, in another move that confirmed the media-mindedness of the commission, after initially deciding not to use a press relations officer, the commission now deemed it necessary to "obtain the services of a competent press relations man to handle all such matters."²⁴ Thus, before the end of August, the commission had determined the format of the final report as well as the procedures for the conduct of its investigation.

Visitations

In its attempt to cover every aspect of aviation during the investigation, the commission depended mainly on three sources of information: the testimony of the witnesses who appeared before it; the views expressed by private citizens through letters, telegrams, and informal conversations; and by field trips to key aviation facilities, laboratories, and plants throughout the United States. This last method was particularly important. First discussed at a meeting on 11 August, field trips were designed to do two things: to give the commission a first-hand look at the aviation situation in the United States and, as each trip was highly publicized in both the national and local media, they served to amplify the commission's activities to the general public.²⁵ General Bryant L. Boatner, the commission's Air Force liaison officer, scheduled and arranged the details of each visit.²⁶

Two weeks later, the commission made its first trip, an inspection of the NACA

²² Minutes, 9 September 1947, PAPC, Truman Library.

²³ Ibid.

²⁴ Ibid.

²⁵ Letter from Thomas K. Finletter to S. Paul Johnston, 1 October 1947, West Coast Trip, PAPC Files, Truman Library.

²⁶ Minutes, 11 August 1947, PAPC Files, Truman Library.

laboratories at Langley Field, Virginia. From 5-12 October, using President Truman's personal airplane, the *Independence*, commission members visited the following aviation facilities in the Midwest and Pacific regions of the United States:

Air Materiel Command, Wright Field, Dayton, Ohio
 Civil Aeronautics Administration Technical Development Center, Indianapolis, Indiana
 Allison Division, General Motors Corporation, Indianapolis, Indiana
 Beech Aircraft Corporation, Wichita, Kansas
 Boeing Airplane Company, Wichita, Kansas
 Cessna Aircraft Company, Wichita, Kansas
 Consolidated-Vultee Aircraft Corporation, Fort Worth, Texas, and San Diego, California
 Ryan Aeronautical Company, San Diego, California
 Lockheed Aircraft Corporation, Glendale, California
 Douglas Aircraft Company, Santa Monica, California
 Northrop Aircraft, Incorporated, Hawthorne, California
 North American Aviation, Incorporated, Inglewood, California
 Hughes Aircraft Company, Culver City, California
 Muroc Army Air Base, California
 National Advisory Committee for Aeronautics, Moffat Field, California
 Naval Air Transport Service Headquarters, Moffat Field, California
 Boeing Airplane Company, Seattle, Washington²⁷

At the invitation of the Navy, on 21 October 1947 the commission joined the CAPB aboard the aircraft carrier *Midway* for a demonstration of naval air tactics at sea. Subsequently, on 6 November, again using the *Independence*, the commission visited the following eastern aircraft plants: Gruman Aircraft Company, Bethpage, New York; Republic Aviation Corporation, Farmington, New York; and United Aircraft Corporation, East Hartford, Connecticut. The commission concluded its visits with an inspection of the Glenn L. Martin Company in Baltimore, Maryland, in early December. While the majority of these visits were short, ranging from 60 to 90 minutes, they did give the commission a good idea of what direction the hearings should go. Finally, as Finletter

²⁷ *Survival in the Air Age*, 160.

mentioned in a letter to Johnston, the field trips were encouraging because they showed that the public was interested in aviation issues.²⁸

Hearings

Undoubtedly, of all the commission's activities, the most conspicuous and widely followed by the public and press were the formal hearings which began on 8 September and closed on 3 December 1947. As decided in earlier meetings, the commission held both public and executive sessions as well as several less formal conferences and meetings with civilian and governmental representatives and agencies. In all, the commission held 206 formal sessions broken down into the following categories:

Open hearings.	96
Executive sessions	65
Luncheon meetings	33
Dinner Meetings	5
Miscellaneous.	7 ²⁹

Each hearing consisted mainly of questioning by the commission to elaborate upon or to clarify information submitted by the witness in his advance statement. Nonetheless, the commission went to great lengths to prepare for each particular witness and area of investigation. Prior to the hearings, the commission assembled a large reference library (staffed by a qualified librarian) in the Commerce Department building which contained an impressive variety of aviation source documents. Among the hundreds of documents included in the library were reports, books, articles, and official government records pertaining to such data as the President's Aircraft Board (Morrow Board); all ACC reports; all aviation articles in periodicals from 1939 to 1947; Congressional legislative

²⁸ Letter, Finletter to Johnston, 1 October 1947.

²⁹ *Survival in the Air Age*, 158.

activities regarding aviation policy; CAB reports; and any items dealing with changes or proposed changes in aviation or aviation policy to 1947.³⁰

Additionally, the commission's staff kept full stenographic records of all public hearings. From these records, they produced abstracts of significant items from both the advance statement provided by the witness and the testimony taken during his appearance before the commission. At the end of each day of hearings, the abstracts were compiled both alphabetically by witnesses and also according to subject matter. The commission then used these abstracts along with any additional information collected through research and correspondence to prepare their final report and recommendations. The records of the commission show that public hearings, statements, and stenographic records of approximately 4,000 pages were bound in six volumes as the official commission file.³¹

As the witness list in the final report showed (See Appendix), the commission's advisors did an outstanding job of calling the most qualified and representative witnesses in each main area. Almost without exception, every prominent civilian, government, and military aviation figure appeared before the commission. Those that could not personally appear invariably wrote letters explaining their positions on various aspects of aviation on which the commission had asked them to address.

The commission opened the hearings in executive session on 8 September 1947; the first public sessions took place one week later. Before calling the first witness, Finletter addressed the small number of reporters and onlookers gathered in the Commerce Department building auditorium:

³⁰ Minutes, 5 September 1947, PAPC Files, Truman Library; Wilson, 60.

³¹ *Survival in the Air Age*, 160; Wilson, 64.

The President has established this Commission to do a work of great importance. This work had to do in large part with the security of the country.

We know that aviation is the key factor in our national defense. We know that air strength cannot be improvised. We know that the creation of new planes, the acquiring of skills to operate them and the technical devices are matters that require infinite planning, great resources, and above all--time.

We know that the role of the airplane in attack and defense has been enormously magnified by the new weapons of mass destruction which have been and are now being developed--and for which the airplane is now the most likely mode of delivery. . . .¹³

He concluded by explaining that "the task assigned to this Commission is to take stock of where we stand in aviation and to make such recommendations as 'will serve as a guide for formulating a carefully considered national air policy.' The Commission is seeking information from all possible sources; the Armed Services, Government, industry and informed citizens."¹⁴

Throughout the hearings, various combinations of commission members and staff heard from witnesses in the airline and aircraft industry, the government, and the military. The first two months of the hearings related primarily to air transportation and aircraft manufacturing issues. However, owing to the commission's interest in military aviation, the question of national security within the context of these areas commanded the most attention. As Baker put it years later, "the military question was so vital at that time--in '47, that although there were staff at work on civil aviation, I didn't have much time for it and neither did any of the other commissioners."¹⁴ The commission devoted the last month of hearings exclusively to the question of national security. During this time, the commission generally heard from civilian and military witnesses from the armed

¹³ Background Information President's Air Policy Commission, 1 October 1947, 3-4, PAPC Files, Truman Library.

¹⁴ Ibid.

¹⁵ Interview, Baker, 51.

services. In all cases, however, the hearings served as a public forum for the advancement of a particular view or doctrine. The airline and aircraft areas naturally pushed for more aircraft production and government support; the Air Force wanted a 70-group force structure capable of carrying out strategic bombardment; and the Navy attempted to disavow the Air Force plan while pushing for a buildup of its own air power.

Despite their differences in motivation, one view that all witnesses seemed to share was an unconditional acceptance of strategic air power and the accompanying doctrine of strategic bombing as an essential component of national defense strategy in the postwar atomic age. Indeed, it would have been difficult, even impossible, for the commission to conclude otherwise from the testimony that it heard. For instance, on 11 November 1947, Army Chief of Staff Dwight Eisenhower told the commission that "I firmly believe that a reasonably balanced Air Force is one of the greatest assurances we have that we will be respected elsewhere in the world. . . . You cannot be militarily strong without a strong Air Force. You cannot beat a strong Air Force."³⁵ General Douglas MacArthur, in response to a request from Finletter for his views on national air policy, replied through Lieutenant General Ennis C. Whitehead, commander of the Far East Air Forces, that American air power required "an Atomic Striking Force, under a single commander, capable of destroying at least the fifty most important targets in USSR in a single day."³⁶ Even high Navy officials stressed the importance of strategic air power. In an early executive session, John Nicholas Brown, assistant secretary of the navy for air,

³⁵ Excerpts from General Eisenhower's Direct Testimony, 11 November 1947, PAPC Files, Truman Library.

³⁶ Statement for the President's Air Policy Commission, Lieutenant General Ennis C. Whitehead on behalf of General Douglas MacArthur, 13 November 1947, PAPC Files, Truman Library.

warned that the experiences of World War II were misleading in regard to the proper role of naval aviation. Speaking of the need for a swift retaliatory capability, Brown argued "that the Navy's part is a very big one in that segment, because it has in charge that part of air power which had to do with the sea, over the sea or from the edge of the sea, and the use by the Navy of its mobile airfields, the aircraft carriers, in the quick retaliation of an attack is in my opinion one of the great roles and missions of the Navy."³⁷ Admiral Chester Nimitz expanded on Brown's testimony. "Recent experience during the war," Nimitz told the commission,

demonstrated conclusively the offensive capabilities of the aircraft of our carrier task forces. . . . I wish to assure you that the importance of naval aviation in the structure of the navy cannot be over-emphasized. It is the core of the power of that structure. It will be our purpose to see to it that our carrier task forces and our shore-based naval aviation units are equipped and trained to make the best use of all new weapon developments of the future. . . .³⁸

On 3 December 1947, Artemus L. Gates, the former assistant secretary of the navy for air, offered interesting testimony that epitomized the struggle between the Air Force and the Navy over the air mission. Gates testified that he believed air supremacy was all important, but he had "become more and more concerned over the emphasis that has been placed on the requirements of the United States Air Force and because of this emphasis that the public will overlook the problems of Naval Aviation or will be inclined to minimize those problems."³⁹ Following the lead of Nimitz, Gates stressed that naval aviation should not be slighted because the "backbone of the Navy is its aviation."⁴⁰ When asked by Finletter if the Navy had an offensive role, Gates replied, "there is no

³⁷ Statement of John Nicholas Brown, 9 September 1947, PAPC Files, Truman Library.

³⁸ Statement of Fleet Admiral Nimitz, 12 November 1947, PAPC Files, Truman Library.

³⁹ Statement of Artemus L. Gates, 3 December 1947, PAPC Files, Truman Library.

⁴⁰ Ibid.

question in my mind that the striking power of the carrier task group is one of the strongest offensive roles we have in air power today."⁴¹ Gates concluded that "in placing so much emphasis before this commission, and the consequential publicity, I hope the public and the Congress would not get in the frame of mind of thinking that the Air Force is completely responsible for the development of aviation."⁴²

Gates had good reason to worry. As might be expected--and as the Navy became painfully aware--the Air Force did a masterful job of not only expressing the virtues of strategic air power, but also of persuasively presenting 70 air groups as the minimum force level necessary for national security. The Air Force, which had just recently completed its long campaign for independence, had the added advantage of being thoroughly prepared to fight for its 70-group program since it had been advocating such a plan since 1945.

On top of this, the Air Force had officers who truly understood the significance of the commission and whose testimony focused on specific goals. Soon after Boatner had been selected as the commission's Air Force liaison in early August, he sent a memorandum reminding the Air Staff that the Morrow and Baker Boards were previous examples of efforts to develop a comprehensive national air policy. Then, comparing the Finletter Commission to these earlier efforts, he wrote that

... [the Finletter Commission] will surely develop a report to the President which will have far reaching effects upon the Air Force. The future Air Force may depend heavily upon the recommendations of this commission. It is essential that the Air Force pursue this activity to the end that there shall be accomplished the satisfactory development of policies which are in the interests of the Air Force.⁴³

⁴¹ Ibid.

⁴² Ibid.

⁴³ Memorandum for Air Staff, 12 August 1947; Subject: "President's Air Policy Commission," LeMay Papers, 168.64-27, AFSHRC.

By far, the most significant Air Force testimony before the commission was that given by General Carl Spaatz, Air Force chief of staff, and Secretary of the Air Force Stuart Symington. Spaatz, who appeared before the commission on 17 November 1947, explained in his opening statement that "after the most painstaking study and careful consideration of our current position in this unsettled world, we have concluded that the barest minimum necessary for our national security as far as the Air Force is concerned, is our 70-Group Program."⁴⁴ He further informed an obviously apprehensive commission that due to budgetary limits, the Air Force would have only 55 of the program's combat groups by 1 January 1948. To add perspective to his statement, Spaatz pointed out that according to his intelligence information, even if the Air Force reached its goal of 70 groups in the next year, the Soviet air force would still be twice as powerful. Although he believed that there was no immediate threat from the Soviet Union, Spaatz emphasized that "as time passes the danger of attack will grow in proportion."⁴⁵ Finletter, in particular, expressed great concern over Spaatz's testimony when he referred back to the 70-group figure as a minimum for the security of the country. "It seems to me an extremely serious statement," said Finletter, "It means anything less than that leaves the country in an unsecure condition."⁴⁶ "That is correct," Spaatz answered, "and the sooner we have the 70 groups in my opinion the better."⁴⁷

On 26 November, Symington testified before the commission accompanied by Air Force Vice Chief of Staff General Hoyt S. Vandenberg. Like Spaatz, Symington called for a 70-group Air Force, but went into much greater detail describing its composition.

⁴⁴ Statement of General Carl Spaatz, 17 November 1947, PAPC Files, Truman Library.

⁴⁵ Ibid.

⁴⁶ Ibid.

⁴⁷ Ibid.

He told the commission that the Air Force needed 6,869 aircraft for the 70 groups; 3,212 for the Air National Guard; and 2,360 for the Air Reserve. The total of 12,441 airplanes would be kept modern and up to date with an annual procurement of 3,200 planes, which amounted to approximately 46,414,000 pounds of airframe weight per year. In addition, Symington asked for a reserve of 8,100 airplanes to fill combat losses until manufacturing could be raised to wartime levels. Finally, he warned that under the 1947 budget, the Air Force could not go over 55 groups and would, in fact, eventually drop to below 40 groups as military appropriations continued to decrease. When asked by Finletter what the capabilities of the 55-group program were, Symington replied that "if we felt 55 groups were adequate we would not come in here and present a case for 70. We do not believe 55 groups gives adequate security to the United States based on the assigned mission of the Air Force by the Joint Chiefs of Staff."⁴⁸ In the final analysis, Symington believed, the Air Force needed 70 combat groups in order to "undertake immediate and powerful retaliation--a capacity which is itself the only real deterrent to aggression in the world today."⁴⁹ Baker then asked, if money were no object, how long it would take for the Air Force to build up to 70 groups? Symington, supported by Vandenberg, answered that based on the state of the aircraft industry, it would take one year to reach 70 groups. Before leaving, Symington added that the new secretary of defense, James V. Forrestal, faced a difficult problem in deciding between "the security of the country and efficiency of utilization of the taxpayers' defense dollar."⁵⁰

⁴⁸ Statement of W. Stuart Symington, 26 November 1947, PAPC Files, Truman Library.

⁴⁹ Ibid.

⁵⁰ Ibid.

Of course, as the commission well knew, money was a very important object. Despite the general agreement on the value of strategic air power, the main difficulty for the commission was to devise a formula that provided the military force it believed necessary for national security while staying within the tight fiscal restraints imposed by Truman. Testifying on the last day of hearings, Secretary of Defense Forrestal was careful to assure the commission, which was already convinced of the need for a strong Air Force, that the 1948 military budget then being prepared would call for more money for military aircraft. Although Forrestal would not disclose the amount, he declared that the cost of providing America with the kind of defense required would be tremendous and had to be accomplished over a period of years. "The United States," Forrestal told an approving Finletter, "must have air forces sufficiently powerful to protect our own security and territory, and sufficiently powerful and versatile to be capable of making swift counter-attacks."⁵¹ Unfortunately, the secretary of defense was a man torn between two loyalties. On the one hand, Truman had tied Forrestal's hands with a budget ceiling of \$11 billion, while on the other, Forrestal truly believed that the services needed much more than that to effectively accomplish their mission. In a letter dated 8 December 1947 to Senator Chan Gurney, chairman of the Senate Armed Services Committee, Forrestal explained his dilemma: "At the present time, we are keeping our military expenditures below the levels which our military leaders must in good conscience estimate as the minimum which would themselves ensure national security. By doing so we are able to increase our expenditures to assist in European recovery."⁵² Forrestal considered this risk

⁵¹ Statement of James V. Forrestal, 3 December 1947, PAPC Files, Truman Library.

⁵² Walter Millis, ed., *The Forrestal Diaries* (New York: Viking Press, 1951), 350-351.

justifiable as long as the United States held a clear economic, industrial, and atomic weapons advantage over the rest of the world.⁵³

This was the same dilemma that the Finletter Commission faced as it completed its hearings and prepared to write its report in the winter of 1947. By this time, however, the unanimity of testimony had convinced the commission that strategic air power was the key to "survival in the air age." The commission had also decided that the 70-group Air Force, not an expansion of naval aviation, was the only way to do this. Thus, when Finletter rapped his gavel signifying the close of hearings on the afternoon of 3 December 1947, the commission's work in the area of military aviation was virtually complete. Its recommendations regarding the design of postwar American air power were already a forgone conclusion.

⁵³ Futrell, 225.

CHAPTER IV
RATIONALE AND RECOMMENDATIONS
FOR MILITARY AIR POLICY

Air Power and the National Security

After five months of intense investigation, the Finletter Commission reached a frightening conclusion in its final report. In a dramatic preamble that expressed an extremely pessimistic view of the postwar international situation, the commission confessed that "we believe that the United States will be secure in an absolute sense only if the institution of war itself is abolished under a regime of law."¹ It went on to explain that in years past, by virtue of its armed forces, geographic position, industrial capacity, manpower, and allies, the United States had been relatively safe from the ravages of war, but no more. The advent of modern technology and weapons of mass destruction had neutralized these safeguards. In other words, a new medium of attack--the air--now jeopardized American national security.

This outlook was the result of several factors. The destruction of Germany and Japan by strategic bombing during World War II, the testimony of countless civilian and military experts, and the continually mounting cold war tensions in Europe and to a lesser extent, Asia, had all convinced the commission of the necessity of maintaining "a force in being in peacetime greater than any self-governing people has ever kept."² Since an attack through the air had such destructive potential, the United States had to develop a modern,

¹ *Survival in the Air Age*, 3.

² *Ibid.*, 7.

strategic Air Force not only capable of "meeting the attack when it comes but, even more important, capable of dealing a crushing counteroffensive blow on the aggressor."¹ As the commission's investigation had revealed, however, because military aviation--and the Air Force in particular--had deteriorated so badly after the war, the United States simply was not prepared to support a national security policy that relied primarily on strategic air power. Thus, it was with an extreme sense of urgency that the commission presented its recommendations in a ceremonial, leather-bound copy of *Survival in the Air Age* to President Truman on 14 January 1948.

The commission's concern over the susceptibility of the United States to enemy aggression from abroad was unmistakable. Although *Survival in the Air Age* mentioned no specific country as a threat to American national security, the commission clearly focused on the growing military power of the Soviet Union, especially in the area of developing atomic weapons. In a classified supplemental report prepared for the President, the commission concluded that the Soviet Union "at the present and in the future, represents a serious threat to the peace and security of the United States."⁴ Furthermore, it believed that "only one purpose can be ascribed to her activities, and that is the conduct of an aggressive war against the United States at some time in the future."⁵ The commission's emphasis on the Soviet Union was a critical part of its thinking, and therefore weighed heavily on its final recommendations.

¹ Ibid, 11-12.

⁴ Supplemental Classified Report of the President's Air Policy Commission, 31 December 1947, 3-5, PAPC Files, Truman Library. Much of the classified report was based on the hearings conducted in executive session with top members of the government and military.

⁵ Ibid, 5.

Some years later, in describing the psychological influences and international climate that lay behind the recommendations contained in the report, commission chairman Thomas Finletter explained that the inability of the United Nations to act as an effective international "regime of law," combined with the eventual Soviet development of atomic weapons, made it imperative that the United States build a strong air atomic capability to assure its own security.⁶ Vice-chairman George Baker was even more specific in his recollection: "All our energies went into the problem of what to do in the situation of the Russians getting modern means of delivery [for atomic weapons], such as jet propelled missiles. . . . All our energies went into figuring out what the Government policy on that should be."⁷ Interestingly enough, Baker admitted that

We couldn't find any answer other than "you do it to us, you'll die." There didn't seem to be any other. We had to get an honest capability; there's no use saying it if it isn't so. If they did attack us we could rain destruction down on them within a matter of instants and they had to know that we could and would do it. . . . if you had it and they didn't know it, it didn't do any good; if you said you had it and didn't have it, it didn't do any good. Either way they could take us anytime they wanted. . . . There was no problem getting these people [the other members of the Finletter Commission] to agree; they faced an absolutely stark reality.⁸

In its published report, the commission assumed that "hostile powers [the Soviet Union]" would have atomic weapons in such quantity by the end of 1952 as to be a serious threat to the United States.⁹ In fact, the commission established 1 January 1953 as

⁶ Interview, Thomas K. Finletter, February 1967, 6, USAF Oral History Program, AF'SHRC. Overall, the commission doubted that the United Nations would soon develop the needed authority to prevent another world war. As a result, its report focused on the ability of the United States to unilaterally maintain world peace by significantly strengthening its armed forces. See Wilson, 78-79.

⁷ Oral History Interview, George P. Baker, December 1977, 51-53, Truman Library.

⁸ Ibid.

⁹ *Survival in the Air Age*, 14. Finletter remembered that "most people didn't believe it. They couldn't believe that we, with this great big jump, were going to get caught by the Russians." Interview, Finletter, 6.

"A-day" or the day when the United States needed to have an air arm that could defend against a possible atomic attack on the country. Nevertheless, believing that "it would be an unreasonable risk, and therefore, a reckless course" to depend on such an assumption as fact, the commission argued that "we may learn of the existence of atomic weapons in the hands of other countries only when they are used against us."¹⁰

Of course, *Survival in the Air Age* did not explain why the commission believed that the Soviet Union's only purpose in pursuing the development of atomic weapons was to attack the United States. The supplemental report, however, contained an interesting explanation of the commission's rationale. Pointing out that atomic weapons and the strategic aircraft needed to deliver them could only be developed if the Soviet Union devoted an extraordinarily large part of its economy to such an effort, the commission argued that Russian military planners would not do so unless they had an ultimate goal that required these weapons. The Soviet Union did not need weapons of mass destruction, the report maintained, if her only objective was the control of her satellites and the other countries of Western Europe; if that had been the case, Russia could have accomplished these aims at much less cost by using political aggression, conventional war methods, or both. "Therefore," it warned, "one must conclude that the type of weapons Russia is developing is being designed for action against a people and country more remote than her immediate neighbors and, of course, that means the United States."¹¹

The commission did consider the possibility that Soviet activities were purely defensive in nature because of American possession and previous use of atomic weapons. But according to the classified report, if one examined the political statements of past and

¹⁰ *Survival in the Air Age*, 14.

¹¹ Supplemental Classified Report, 11.

present Soviet leaders who advocated "the complete destruction of the capitalistic system," a Russian intent to attack the United States was quite clear.¹² Because of these warning signs, the commission summarized that

our problem of security from about 1953 on will be vastly different from the present, because there will exist in the world at that time a nation whose announced doctrine is the destruction of our way of life, and this nation will possess the means of inflicting damage on us from which we cannot recover. We must as a matter of national policy meet this eventuality by possessing and maintaining power to defend ourselves against such an attack and to immediately strike the aggressor with a decisive counter-offensive blow. The military establishment required under these conditions will, as outlined earlier, be larger, more expensive than that recommended for the earlier period. Nevertheless, such preparedness must be the objective of the United States if we are to remain free citizens in our world.¹³

For strategic purposes, the commission divided the future into two distinct phases based on A-day. Phase I began immediately upon release of the report and extended to A-day while Phase II consisted of A-day and beyond. *Survival in the Air Age* emphasized that a gradual build-up of air power had to begin immediately in order to prepare for the challenges that would most likely confront the United States in the future. "We have no breathing space in which we do not need air power," asserted the report.

While the commission believed that the chance of a major war during Phase I was remote, the United States could take no chances because the "situation is dangerous, and our foreign policy is not running from the danger."¹⁴ Of particular concern during the period was the possibility of the United States "blundering" into war with the Soviet Union. This could happen, the commission pointed out, as a result of border conflicts between occupational forces, by Russian seizure of countries or areas vital to American national security interests, or even by subversive infiltration tactics against the United

¹² Ibid, 12.

¹³ Ibid.

¹⁴ *Survival in the Air Age*, 21.

States government.¹⁵ In any case, the commission recommended that during Phase I the United States develop a military establishment that was "(1) capable of an atomic attack, (2) stronger in air power than that of any other country, and (3) capable of a sustained and powerful air counteroffensive, either directly or by the way of intermediate bases."¹⁶

For Phase II, the commission assumed that any major conflict would result in a direct attack on the United States mainland. This attack would utilize atomic weapons, occur without warning, and "have as its objective the destruction of our capacity for resistance and counterattack."¹⁷ Since such an attack would most likely cripple the nation's ability to mobilize effectively for war, the force needed for this phase would be much larger and more powerful than that required for Phase I.

The result was that the United States had to "be ready for modern war . . . not for World War II but for a possible World War II."¹⁸ And in the collective mind of the Finletter Commission, this meant a war of unimaginable magnitude fought through the air. It was now up to the United States to prepare for it. Hence, the commission recommended a twofold approach to achieving relative security for the United States. That is, by arming the nation so strongly that (1) "other nations will hesitate to attack us or our vital national interests because of the violence of the counterattack they would have to face," and (2) that "if we are attacked we will be able to smash the assault at the earliest possible moment."¹⁹ Anything less, the report cautioned, would be foolish.

¹⁵ Supplemental Classified Report, 6.

¹⁶ *Survival in the Air Age*, 22.

¹⁷ Ibid, 22-23.

¹⁸ Ibid, 7.

¹⁹ Ibid, 6.

Military Aviation Recommendations

The Finletter Commission's recommendations for military aviation covered several major areas that had a direct impact on the design of postwar American air power. Among the more important areas included those that dealt with the Air Force; the Navy air arm, the Unification Act and the Joint Chiefs of Staff, and appropriations for the air establishment. A brief portion of the commission's report covered such minor topics as military and commercial transport services, mobilization planning, and periodic reviews of the military establishment.

Among the most highly anticipated and widely publicized recommendations were those regarding the Air Force. The commission did not disappoint air power supporters, nor did it mince words when it bluntly stated that "the Air Force as presently composed is inadequate."²⁰ It continued, saying that "it is inadequate not only at the present time when we are relatively free of the dangers of sustained attack on our homeland, but is hopelessly wanting in respect of the future Phase II period when a serious danger of atomic attack will exist."²¹

Obviously relying on the testimony of Spaatz and Symington, the commission again expressed alarm at the possibility of the Air Force having to shrink to 40 groups starting in July 1948 because of budgetary constraints. Insisting that this could not be permitted, the commission instead recommended a minimum force in being of 12,400 new airplanes, organized into 70 combat groups and 22 special squadron. This force would be supplemented by 27 National Guard groups and 34 groups of Air Reserve. Additionally, it judged that the Air Force needed 401,000 personnel and a reserve force of 8,100

²⁰ Ibid. 24.

²¹ Ibid.

replacement aircraft. Simply put, this was the same program that Symington had outlined to the commission on 26 November 1947. Incredibly, it was also the same program that the Air Force had first proposed on 28 August 1945.²² It appeared that the Air Force had won a smashing victory in its campaign for 70 combat groups and, more importantly, as the first line of national defense.

The apparent success of the Air Force appeared even greater when compared to what little the commission recommended for Navy aviation. In a curious observation, the report stated that the postwar mission of the Navy had significantly changed in that "it will not be called upon to engage an enemy surface Navy since none exists and it is questionable whether any will be built by a foreign power within the next decade."²³ The principle mission of the Navy now was to secure operating bases for air and ground forces. Repeating what Navy officials had declared during the hearings, the commission acknowledged that "the new strategy of the Navy is air power" and announced that the aircraft carrier had replaced the battleship as the most important ship within the Navy fleet.²⁴ The only concrete recommendation was for the replacement of obsolete aircraft that the Navy most likely would have gotten no matter what the commission recommended. In the end, the commission simply noted that naval air operations required 5,793 combat aircraft and 5,100 support aircraft, all of which it believed the Navy already had. By any measure, *Survival in the Air Age* was a serious setback for the Navy both in terms of aviation appropriations and interservice prestige. In retrospect, this episode

²² Ibid, 25. See page 36 regarding the origin of the 70-group program

²³ Ibid, 27.

²⁴ Ibid, 28.

widened the rift between the Air Force and Navy that had developed during the long process of armed services unification put into effect by the National Security Act of 1947.

Just as the National Security Act of 1947 marked the successful conclusion of the Army Air Force's drive for independence from the War Department, it also marked a less successful ending to a short Navy campaign to prevent unification. Since the Navy saw unification as a threat to its independence, it opposed the process and harbored some resistance even after Truman had signed the act into law in July 1947. Although the purpose of the act was to streamline national defense activities under a single, civilian secretary of defense, the services had never totally abandoned the practice of independently planning their own peacetime organization and procedures. The commission noted that this situation had resulted in a lack of urgency in developing and approving postwar operational plans and budgets. In its report, the commission reminded the Secretary of Defense that it was his responsibility to ensure that the Joint Chiefs of Staff prepared integrated strategic national defense plans that required "the minimum of personnel and equipment and a maximum of effectiveness."²⁵ The commission expressed disappointment that the Air Force and the Navy could not accurately integrate operational requirements and strategic planning because of the lack of cooperation and coordination between the two. Although it did not name Forrestal specifically, the commission admonished the Secretary of Defense to "exercise fearless and independent judgement" to properly integrate the services under the terms of the National Security Act.²⁶ Finally, in an attack on interservice friction that seemed to be directed mainly at the Navy, the commission commented unfavorably on the inclination by some military leaders toward

²⁵ Ibid, 29.

²⁶ Ibid, 30.

the "maintenance of yesterday's establishment to fight tomorrow's war; of unwillingness to discard the old and take on the new; of a determination to advance the interest of a segment at the sacrifice of the body as a whole."²⁷

An area that the commission saw no room for sacrifice was in its recommendation for increased Air Force appropriations. In order to organize, equip, and ready the 70-group Air Force for service by 1 January 1950, it recommended for calendar years 1948 and 1949 an increase of \$1.3 billion each year.²⁸ As part of these increases, the commission recommended that Congress set aside \$350 million in 1948 and \$660 million in 1949 specifically for the procurement of new aircraft. Additionally, in calendar year 1949, another \$300 million would go toward building the 8,100 aircraft reserve force starting in January 1950. According to the commission's plan, the size and power of the Air Force would progressively increase until it reached the full 70 group strength with the modernized reserve force at the end of 1952. The commission believed that this was the most efficient and economically feasible way of building the Air Force up to its required force level while simultaneously satisfying the strategic requirements of the nation under its Phase I and II assumptions.

In contrast, the commission recommended a much smaller increase in Navy appropriations. The procurement of replacement naval aircraft would require an additional \$192 million in 1948 and \$310 million in 1949.²⁹ Overall, the commission's plan called for an increase in the defense budget from approximately \$10 billion to \$11.6 billion in 1948 and \$13.2 billion in 1949.³⁰ Nearly all of the increase would go toward

²⁷ Ibid.

²⁸ Ibid, 32.

²⁹ *Survival in the Air Age*, 35.

³⁰ Ibid.

the purchase of new military aircraft and the maintenance of related support activities. The commission regretted the need for these recommendations, but remained firm in the belief that there was no other choice. Until the international situation improved, it reminded the reader, "we cannot escape the clearly demonstrated necessity for a military establishment adequate to protect the country and its vital interests."³¹

Even as the commission recommended increased military aviation expenditures, it realized that Truman had every intention of cutting the military budget. It had hoped that some savings would result from the unification of the services under the National Security Act, but it would not sacrifice the 70-group Air Force at the expense of Truman's arbitrary budget limit. James E. Webb, Truman's Budget Bureau Director who became known for his skeptical and hard-nosed attitude toward military appropriation requests, quickly drew the ire of the commission. In the supplemental classified report, the commission confided to Truman that "we are concerned over a growing tendency of the Director of the Budget to establish advance estimates of budget requirements of the services and to present these to the services as ceiling figures which they cannot exceed in the preparation of their budget estimates."³² Webb's actions, the commission complained, did not consider "the strategic needs of the services" and could result in the improper distribution of funds, with some services getting too little and others too much.³³ In a final salvo at Webb, the commission made it clear to the President that it believed the secretary of defense had the responsibility of setting military budget limits and that "no agency of Government should be empowered to impose fund limitations in a manner now being exercised by the office

³¹ Ibid, 36.

³² Supplemental Classified Report, 15.

³³ Ibid.

of the Director of the Budget."¹⁴ What the commission failed to realize at the time was how closely Webb worked with Truman. Thus, the President approved of, and often directed the budget restrictions that Webb had set for the military.¹⁵ Little did the commission know that this situation would have a significant effect on the actual implementation of its recommendations in the years to come.

Yet, Truman's economic policies played little part in influencing the commission's recommendations. While the commission was fully aware of Truman's desire to balance the budget, it believed that the country had no choice but to support heavy appropriations for the air establishment. The commission admitted that its plan would cost the taxpayer a substantial amount, but it also pointed out that 85 percent of the Federal budget since 1915 had "been spent for war or preparation or payment for war."¹⁶ Then, in a pay now or pay later scenario, the commission argued that "the expenditures which we recommend, however, would be small in comparison with the cost of another war."¹⁷ Finally, the commission assured the public that it had not blindly accepted the military estimates from which it based its recommendations without submitting them to "critical analysis" and a test of "strict necessity" for the strategic needs of the country. After all, the report added, "self preservation comes ahead of economy."¹⁸ No one, especially the members of Congress, could argue with that.

Another development that gave the commission confidence in its actions was the gradual shift in Congressional support away from the Army and Navy in favor of the Air

¹⁴ Ibid.

¹⁵ See Richard F. Haynes, *The Awesome Power* (Baton Rouge: Louisiana State University Press, 1973), 121-123.

¹⁶ *Survival in the Air Age*, 8.

¹⁷ Ibid, 9.

¹⁸ Ibid.

Force and air power. Testimony given at not only the commission's hearings but also those of the Congressional Aviation Policy Board had convinced most of Congress that the most immediate and likely threat to the United States was war with the Soviet Union. This situation, combined with Truman's proposed military budget ceilings, convinced most legislators that the 70-group Air Force and strategic bombing was the only feasible answer to a sticky national security question. As a result, American air power, or the lack thereof, increasingly came to the attention of Congress. For example, Representative John J. Rankin typified the enthusiasm for air power that was building in Congress when he addressed his colleagues on 5 June 1947:

We are faced with the greatest crisis in world history; we need not 'kid' ourselves. Communism is making war on the United States . . . I say we should have the strongest air force on earth. We should keep the atomic bomb, and I am in favor of turning it back to the military authorities, keeping a supply of bombs on hand, keeping planes equipped to distribute them and aviators trained to operate them, keep our Air Force ahead of any other Air Force on earth, because you are dealing with a savage force that does not recognize anything on earth but force, or power.³⁹

Sentiments such as these were not confined only to Congress, but had spread throughout the country. As public reaction to *Survival in the Air Age* showed, most Americans seemed to agree with the commission's findings.

Less than one week after the commission had released its report to the public, Secretary of the Air Force Stuart Symington appeared on the cover of *Time*. Just below Symington's portrait was the simple question, "Peace through air power?"⁴⁰ The accompanying article pointed out the "serious and conscientious" nature of the Finletter Commission and called *Survival In the Air Age* "the most ambitious report on U. S. air power."⁴¹ Without endorsing the report outright, the article was highly complementary of

³⁹ *Congressional Record*, XCIII, 5 June 1947, 6471.

⁴⁰ *Time*, 19 January 1948.

the commission's work and concluded by speculating whether the American public would support the financial obligations of carrying out the commission's recommendations.

"The cost of keeping alive," it answered, "like the cost of living, had gone up. . . ."⁴²

Despite the high cost, other media sources across the country were not hesitant to endorse the commission's report. On the day of the report's release, the editor of the *St. Louis Post Dispatch* who, like most observers, was wary of the cost, still conceded that "it is the consensus of all the people--military, government and civilian--who have been charged with responsibility for designing an Air Force capable of protecting the United States, that something on the order of the organization here described is necessary."⁴³ Perhaps the most supportive editorial appeared in the *New York Times* on the same day. "Here is presented persuasively," the *Times* wrote, "a detailed exposition of a national air policy. It is a policy so well thought out, so sanely presented, so well buttressed by straight thinking that it is difficult to see where it can be attacked. . . . it is no report by sword-rattling militarists or warmongers."⁴⁴ The Washington D. C. *Evening Star* made a similar observation when it told its readers that the report could not be brushed off as the product of a "military mind."⁴⁵ Moreover, it maintained that the commission had "presented the country at large and Congress in particular with an estimate of security threats and a plan for meeting them which it will be risky to disregard."⁴⁶ In one final example, the *New York Herald Tribune* declared that

⁴¹ Ibid. 22.

⁴² Ibid. 25.

⁴³ *St. Louis Post Dispatch*, 14 January 1948.

⁴⁴ *New York Times*, 14 January 1948.

⁴⁵ *Evening Star*, Washington D. C., 14 January 1948.

⁴⁶ Ibid.

few of us will be disappointed in the report of the President's Air Policy Commission. It is comprehensive, enlightened and realistic with respect both to our military air requirements in a troubled world and in an atomic age, and to the support of civil aviation and the aircraft industry, highly essential adjuncts to the national defense. The program the commission sets forth will, of course, cost the taxpayer money, but as insurance through adequate strength of the air arm against a third world war it represents a common-sense economy.⁴⁷

As might be expected, the business and industrial world was quick to praise the commission's recommendations. The commission received dozens of letters from witnesses who testified before it, as well as other interested observers, who believed as did C. R. Smith, chairman of the board for American Airlines, that *Survival in the Air Age* "exudes a spirit of determination to get something done for the welfare of the country."⁴⁸ Of course, the business community knew that the commission's recommendation of 30 to 40 million pounds of military airframe weight annually would, along with civilian and commercial demand, keep the aircraft industry busy for the foreseeable future.

One individual, however, had reservations about the commission's findings. Walter Lippmann, the syndicated columnist for the *Washington Post*, wrote on 15 January that "seventy combat groups or airplanes will not give us peace or security or prosperity or protect the liberties of men if the great nations sink into squalor and disorder."⁴⁹ While Lippmann agreed that a strategic air force was the best way to achieve an effective balance of power with the Soviet Union, he noted something that most experts either had ignored or overlooked: the inflexibility of strategic air power. The problem, he pointed out, was that weapons of mass destruction "can be used only as a last resort in total war. In all the

⁴⁷ *New York Herald Tribune*, 15 January 1948.

⁴⁸ Letter from C. R. Smith to Thomas Finletter, 23 January 1948, Miscellaneous Correspondence, PAPC files, Truman Library.

⁴⁹ *Washington Post*, 15 January 1948.

intermediate phases of diplomacy and local and indirect conflict, as for example in the Balkans today, the weapon is too powerful to be used."⁵⁰ Nevertheless, Lippmann believed that the Finletter Commission's recommendations were the best means of providing for American national security in the short term.

As the above examples show, the recommendations contained in the report were greeted in most circles as the definitive answer to American national security in the atomic age. While the Air Force eagerly awaited the appropriations windfall that its leaders expected as a result of the report, Symington praised the commission's efforts saying that "Americans will long remember it and profit by it."⁵¹ Truman simply wrote that the commission had done "a big job so well in the national interest," but commented publicly that the recommendations in the report had to be approached with "some caution."⁵² In light of coming events, Truman's composure was understandable.

⁵⁰ Ibid.

⁵¹ Letter from Stuart Symington to Thomas Finletter, 14 January 1948, Miscellaneous Correspondence, PAPC Files, Truman Library.

⁵² Letter from President Truman to Thomas Finletter, 20 January 1948, Miscellaneous Correspondence, PAPC Files, Truman Library. *Washington Post*, 14 January 1948.

CONCLUSION

Implementation of the Finletter Commission's Military Air Policy Recommendations

For over forty years, air power advocates had tirelessly campaigned for a national air policy that would strengthen the case for military aviation. From Orville Wright's keen assessment of the flying machine's military potential in 1907; to Billy Mitchell's almost fanatical campaign to promote strategic aerial bombing in the 1920s; to the atomic destruction of Hiroshima and Nagasaki in 1945; the movement to recognize air power as a decisive military weapon continued. Finally, with the release of *Survival in the Air Age* on 1 January 1948, Air Force leaders, aircraft manufacturers, and millions of enthusiastic Americans who supported a powerful strategic air force believed that the time for such a policy was at hand. Due to certain political, military, and economic factors, however, the military air policy recommendations of the Finletter Commission were never realized.

Although President Truman was deeply concerned about the nation's aviation problems, he was under no obligation to implement or even agree with the commission's recommendations. Since he had given the commission free reign to formulate a national aviation policy without direct guidance from the White House, some of its recommendations ran counter to his wishes. For instance, the commission focused nearly all of its investigative energies on the impact of air policy on national security. While understandable, this nevertheless caused the commission to neglect the economic consequences of its recommendations within the context of Truman's fiscal priorities.

This proved to be a crucial mistake. As it happened, the commission set unrealistically high expectations considering the economic restrictions placed on the military budget, and then failed to meet them.

Nevertheless, the concern that Truman seemed to have over the relationship between postwar national security and the international balance of power was not reflected in the military budgets for fiscal years 1948-1950. The background for Truman's thinking went back many years, but his State of the Union address in 1947 gave a clear indication of his priorities for the immediate future. "If we are to fulfill our responsibilities to ourselves and to other peoples," the President declared, "we must make sure that the United States is sound economically, socially, and politically."¹ In the same speech, Truman also added that "in a world in which strength on the part of peace-loving nations is still the greatest deterrent to aggression . . . we must not again allow our weakness to invite attack."²

In order to accomplish the first objective, Truman aimed to reduce the budget deficit and control inflation by reducing government spending, particularly military spending. As a result, and seemingly contrary to his second objective, he placed a \$15 billion budget restriction on the military and demanded cuts that decreased the fiscal year 1948 military budget by approximately \$2 billion to slightly more than \$11 billion.³ Under this budget, which gave each of the services roughly the same amount, the Air Force would fill out only 55 of its desired 70 groups. Although Forrestal had implied during his military budget presentation to the House Armed Services Committee on 25 March 1948 that this balanced plan had been agreed upon by all three services, Symington quickly informed

¹ Quoted in Edward A. Kolodziej, *The Uncommon Defense and Congress, 1945-1963* (Columbus: Ohio State University Press, 1966), 56.

² Ibid.

³ Ibid., 57.

the pro-air power committee under questioning that the Air Force 70-group plan had been disregarded in the budget formulation. Symington's revelation prompted Air Force supporters in Congress to push for legislation authorizing a strength of 70-groups for the Air Force. When that failed, these same supporters introduced a supplemental appropriation bill that would attempt to accomplish the same thing.

In a subsequent hearing before the Senate, Symington laid down the basic problem as he saw it. Quoting Secretary of Commerce (and former ambassador to the Soviet Union) Averell Harriman, Symington told the committee that "the only thing the Russians are afraid of is a great air force,' and they are building a great air force just as fast as they can."⁴ Then, getting to the core of the problem, he said:

... I think it is not a question of whether the Army should have something, because the Air Force has it, or whether the Air Force should have something because the Army has it. That is secondary to what is the best balance to handle our defense situation from the standpoint of our only enemy today.⁵

Although Symington easily convinced Congress of the need for 70 groups, Truman refused to budge from his previous position. Although the final defense authorization bill for fiscal year 1949 provided for a total of \$13.8 billion, Congress (over the objection of Truman and Forrestal) passed a supplemental appropriation of \$822 million for fiscal year 1948 to fund the Air Force's 70-group plan.⁶ Approved by a vote of 343 to 3 in the House and 74 to 2 in the Senate, the supplemental appropriation bill was clearly a vote of confidence in strategic air power and an affirmation of the 70-group plan. Unfortunately for the Air Force, it proved to be more symbolic than substantive. Because the bill

⁴ Quoted in Kolodziej, 78.

⁵ Ibid.

⁶ This was added to the fiscal year 1948 budget rather than fiscal year 1949 in order to make funds available as soon as possible for contracting.

contained a clause that authorized the President to spend the extra money only if he found it absolutely necessary, Truman refused to sign it, thereby nullifying the act. By July 1948, it became clear that the Air Force would not expand to 70 groups.⁷

In early 1949, the agitation between Symington and Forrestal began to heat up as Air Force appropriations continued to decline for fiscal year 1950. In a memorandum from Symington to Forrestal dated 17 January 1949, the Secretary of the Air Force bitterly complained about the manner in which the defense budget had been divided between the services. "I say respectfully but sincerely," Symington wrote,

that in making your decision as to how this ceiling should be divided between the Services you may well be deciding the future security of the United States, because you are leaving no seed corn in the United States Air Force (against the advice of both the President's Air Policy Commission and the Joint Congressional Aviation Policy Board), especially with respect to its strategic striking arm.⁸

Symington also expressed his belief that the public should know about the "atomic bomb picture" as well as the planned method of delivery. This, he claimed, would also let the Soviet Union know the true retaliatory capability of the United States. "Because we know," he informed Forrestal, "when the year comes in which they are ready, if they believe they can win, they will strike. . . . It would seem the air is where the final struggle, if it has to occur, will occur."⁹ Despite Symington's protest, Forrestal, who believed that

⁷ Ibid, 80; Haynes, 124; Hammond, 476-469.

⁸ Memo from Stuart Symington, Secretary of the Air Force, to James Forrestal, Secretary of Defense, 17 January 1949, Stuart Symington Papers, Truman Library. Symington was extremely upset that after the Army and Air Force had each agreed to cut their budget by \$100 million in favor of the Navy, Forrestal then added a \$279 million ship adjustment appropriation that gave the Navy \$72 million more than the Air Force and \$150 million more than the Army. The original figures agreed upon by each of the services had given the Air Force and Army much more than the Navy. This is one example of the interservice games that were played on the highest levels at the time. Less than one month later, however, Forrestal resigned as Secretary of Defense. Two months after that he fell to his death while undergoing psychiatric treatment at Bethesda Naval Hospital, Maryland.

the 70-group plan was an ultimate--rather than an immediate--goal, refused to change the proposed budget.¹⁰

In a familiar move, Congress added an additional \$726 million increase in Air Force funds to the fiscal year 1950 budget. Once again, Truman's steadfast adherence to a defense budget ceiling and his personal opposition to the extra appropriations caused him to impound the funds in a controversial move that reduced the Air Force to 48 groups. In the summer of 1949, despite the best efforts of Congress, air leaders knew that the President had, and would continue, to disregard the military air policy recommended by the Finletter Commission. Ironically, only one year later the Korean War would force Truman to abandon his austere fiscal policy and build the Air Force to 87 groups within the first year of the conflict.¹¹

In the simplest terms, the strategic design of postwar American air power as outlined in the Finletter Commission's final report was the product of previous civil and military aviation policies shaped by the political and budgetary realities of the postwar period. In a more dramatic sense, the commission's recommendations were a victory--both real and symbolic--for the Air Force in its long struggle with the Army and Navy over the role of air power in national defense strategy. Thus, for Air Force leaders, the impact of *Survival in the Air Age* went far beyond its face value. To these men, it was a long-awaited vindication for years of perceived subordination and neglect, as well as a validation of strategic bombardment--a doctrine that air strategists had espoused to varying degrees of

⁹ Ibid.

¹⁰ Futrell, 246.

¹¹ Kolodziej, 104.

success for many years. For over two years after the report's publication, this satisfaction was their only reward.

Final Summary

At first glance it appears that the Finletter Commission promised much more than it eventually delivered--at least in having its recommendations put into action. Because of this, historians Walter Millis, Paul Y. Hammond, and Gregg Herken contend that it was Air Force "propaganda," merely a "forum for proponents of the seventy-group air force and a brief for an air atomic strategy."¹² Others would disagree by pointing out that the widespread public and Congressional support of its recommendations serve as proof that the commission's recommendations were timely, correct, and in the best interests of the nation. What, then, was its significance within the context of United States military history?

The obvious answer is that it played a major role in bringing the nation's aviation problems to the attention of the American public. It showed how these problems affected the warfighting capability of the armed services and, in turn, how this capability affected national security policy. More importantly, the commission also recommended far-reaching solutions. In doing so, it forced the President, Congress, and the military services to evaluate the future role of air power in the nation's defense efforts--much like the work of the Morrow Board some 22 years earlier.

Despite the fact that its recommendations were never implemented, the work of the Finletter Commission can be compared with that of the Morrow Board. However, there were two important differences between the two. First, the Finletter Commission, unlike

¹² Walter Millis, Harvey C. Mansfield, and Harold Stein, *Arms and the State* (New York: Twentieth Century Fund, 1958), 205-207; Hammond, 476; Herken, 244.

the Morrow Board, met during a time of heightened international tensions complicated by the growing Cold War between the United States and the Soviet Union. This situation undoubtedly directed the focus of the Finletter Commission toward national security issues. Hence, the heavy emphasis on military air policy throughout *Survival in the Air Age*. Second, and perhaps most important, was that the Finletter plan became a pawn in a complex internal dispute involving the armed services, Congress, and the President. Both the Air Force and the Navy wanted their share of air power--particularly strategic air power--which led to intense interservice conflict over roles, missions, and larger shares of the military defense budget. On top of this, while Congress supported the commission's recommendations and voted to provide the required funds for its implementation, President Truman imposed a defense budget limit that effectively killed the program.

Still, the commission must take some of the blame for the outcome of its actions. In examining the commission's files, there is no doubt that the men who made up the commission were conscientiously trying to carry out the President's mandate, but in doing so they allowed themselves to become overly enamored of strategic air power as a result of the tremendous pressure applied by the Air Force and its numerous supporters. As Millis pointed out, the commission focused too hard "on a possible future 'all-out' war with Russia rather than on the immediate military requirements of the moment."¹¹ As events would prove, strategic bombers were no substitute for ground troops in such areas as Palestine, Korea, and Greece.

In all fairness, however, most experts that testified before the commission believed that the next conflict would be an "all-out" affair. This is what the commission, as well as the

¹¹ *Forrestal Diaries*, 374.

average American citizen, truly believed. As a result, it based its recommendations on that assumption without regard to cost, but with a sincere concern for the future survival of the United States. In the end, the hard facts and persuasive reasoning provided by the commission helped prepare American military aviation for the challenges that would confront it in the future. The President and the nation had asked for no more and the Finletter Commission provided no less.

APPENDIX

Charts

Chart 1

ORGANIZATION--PRESIDENT'S AIR POLICY COMMISSION

PRESIDENT OF THE UNITED STATES

PRESIDENT'S AIR POLICY COMMISSION

THOMAS K. FINLETTER--CHAIRMAN

GEORGE P. BAKER--VICE-CHAIRMAN

---MEMBERS---

JOHN A. MC CONE

PALMER HOYT

A. D. WHITESIDE

EXECUTIVE DIRECTOR

S. PAUL JOHNSTON

---ADVISORS---

JOHN A. MC CONE

NATIONAL
SECURITY
MATTERS

C. H. COLVIN

AIRCRAFT
INDUSTRY
MATTERS

GROVER LOENING

RESEARCH
AND
DEVELOPMENT

E. S. PRENTICE

CIVIL
AVIATION

R. F. COOK

GOVERNMENT
ORGANIZATION
PROCEDURESASSISTANTEXEC. DIRECTOR

W. K. HITCHCOCK

SPECIAL
CONSULTANTSJOHN C. COOPER
L. R. HARTENFELD
H. F. JOHNSON
BARNET NOVER
A. R. TULLY, JR.
H. E. WEIHMILLER
S. W. MORGANGOVERNMENT
LIAISONBRIG. GEN.
BRYANT L. BOATNER
AIR FORCE
CAPT.
PAUL E. PHIL
NAVY
C. G. WILLIAMSON
COMMERCEEDITORIAL
ADVISORSCARL NORCROSS
J. H. WADSWORTH
P. STRICKLAND
DORIS MILLERRESEARCHASSISTANTSA. C. BALLASTYUS
O. J. DEITERS
W. N. JANSON
GUILFITA METCALF
T. H. K. SMULL
D. G. SPRAGUELEGALADVISORSDENIS MULLIGAN
E. C. SWEENEYLIBRARY

M. L. FLEET

ADMINISTRATIVEH. A. MERRILL
F. A. JACKSON
HELEN CHATFIELDSECRETARIAL STAFFSOURCE: *Survival in the Air Age*, 159.

Chart 2

List of Witnesses Heard by the Finletter Commission
in Formal Public and Executive Sessions

Aiken, Paul--Second Assistant Postmaster General
 Aitchison, Clyde--Chairman, Interstate Commerce Commission
 Akerman, John D.--Professor of Engineering, University of Minnesota
 Alison, John R.--Assistant Secretary of Commerce for Aeronautics
 Allen, C. B.--Washington correspondent, New York Herald Tribune (formerly member, Air Safety Board)
 Allen, William M.--President, Boeing Aircraft Company
 Anderson, William L.--National Association of State Aviation Officials
 Appleby, Paul--Dean, Maxwell School, Syracuse University
 Baldwin, Hanson--The New York Times
 Balfour, Maxwell W.--Aeronautical Training Society
 Bassett, Preston R.--President, Sperry Gyroscopic Company, Incorporated
 Batchelor, James W.--Aviation Attorney, United Pilots and Mechanics Association
 Behncke, David--President, Airline Pilots Association
 Bell, Lawrence D.--President, Bell Aircraft Corporation
 Berle, Adolph--Columbia University (formerly Assistant Secretary of State)
 Berliner, Henry A.--Chairman of the Board, Engineering and Research Corporation of America
 Bertrandias, Victor C.--Vice President, Douglas Aircraft
 Betts, Alan--Consultant, Aircraft Industries Association
 Branch, Harlee--Member, Civil Aeronautics Board
 Braniff, T. E.--President, Braniff Airways
 Brent, J. L.--President, Pacific Overseas Airlines
 Brophy, Gerald--Aviation Attorney, Chadbourne, Wallace, Parke & Whiteside
 Brown, John Nicholas--Assistant Secretary of the Navy for Air
 Brownell, George A.--Davis, Polk, Wardwell, Sunderland and Krenal
 Brownlow, Louis--Public Administration Clearing House
 Buckley, Charles B.--Manager, Aircraft Division of Weber Showcase & Fixture Company
 Buckley, James--Director of Airport Development, New York Port Authority
 Burden, William A. M.--Former Assistant Secretary of Commerce for Aeronautics
 Burgess, Robert S.--Deputy Second Assistant Postmaster General, Air Postal Transport, Post Office Department
 Bush, Dr. Vannevar--Chairman, Research and Development Board
 Callery, Francis--Victor Emanuel & Company
 Clevering, Richard B.--Allison Division, General Motors Corporation
 Cohu, LaMotte--President, Transcontinental & Western Airlines, Incorporated
 Compton, Dr. Karl T.--President, Massachusetts Institute of Technology
 Coy, Wayne--Vice President, Radio Station WINX and WINX-FM
 Damon, Ralph--President, American Airlines, Incorporated

Darr, Harold S.--President, Monarch Airlines
 Davison, General F. Truebee--Former Assistant Secretary of War for Air; Director,
 Museum of National History
 de Florez, Dr. Luis--Independent Consultant, Doubleday Publishing Company
 de Seversky, Major Alexander--Aviation Author
 Dean, Allen--President, Air Freight Forwarder Association (since dissolved)
 Dinn, Madeline C.--National Association of State Aviation Officials
 Douglas, Donald--President, Douglas Aircraft Corporation
 Dryden, Hugh L.--Director of Research, National Advisory Committee for Aeronautics
 Dyer, J.--President, Florida Airways
 Echols, Major General Oliver P.--President, Aircraft Industries Association of America
 Eisenhower, General Dwight D.--Chief of Staff, U. S. Army
 Emmerich, Herbert--Director, Public Administration Clearing House
 Ferguson, Malcolm P.--President, Bendix Aviation
 Flavin, Thomas A.--Judicial Officer, Department of Agriculture
 Fletcher, R. V.--Special Counsel, Association of American Railroads
 Ford, Tirey L.--Chairman, Sea-Air Committee
 Forrestal, James--Secretary of National Defense
 Foster, William C.--Under Secretary of Commerce
 Garside, Joseph--President, E. W. Wiggins Airways, Incorporated; Chairman, Council
 of Local Airlines
 Gates, Artemus--Formerly Assistant Secretary of the Navy for Air
 Gillen, John J.--Deputy Assistant Postmaster General, International Postal Transport,
 Post Office Department
 Glacey, G. F.--Comptroller, Boston & Maine Railroad
 Glass, Fred M.--President, Air Cargo, Incorporated
 Gross, Robert E.--President, Lockheed Aircraft Corporation
 Gurley, F. G.--President, The Atchison, Topeka & Santa Fe Railway Company
 Hardin, Colonel Thomas O.--Air Transport Command (formerly Chairman, Air Safety
 Board)
 Harriman, W. Averell--Secretary of Commerce
 Hartranft, J. B.--President, Aircraft Owners and Pilots Association
 Hazen, R. M.--Director of Engineering, Allison Division of General Motors
 Hensel, H. Struve--Counsel, The Air Freight Association (formerly Assistant Secretary
 of the Navy for Air)
 Hicks, Gwin--Vice President, Empire Airlines
 Hinckley, Robert H.--American Broadcasting Company
 Hoffman, Clifford--National Flying Farmers Association
 Horner, H. M.--President, United Aircraft Corporation
 Howard, Beverly--President, Hawthorne Flying Service; President, National Aviation
 Trades Association
 Hunsaker, Jerome C.--Chairman, National Advisory Committee for Aeronautics
 Hunt, Ralph V.--Vice President, Douglas Aircraft Company
 James, R. B.--Attorney, Chicago, Burlington & Quincy Railroad
 Kennan, George F.--Director, Policy Planning Staff, Department of State

Kindelberger, J. H.--President, North American Aviation
 Klak, John J.--General Counsel, Independent Air Carriers Conference
 Kline, Robert E.--Counsel, Sea-Air Committee
 Kuter, Major General Laurence S.--United States Representative, International Civil
 Aviation Organization
 Laddon, I. M.--Executive Vice President, Consolidated-Vultee Aircraft
 Land, Vice Admiral Emory S., U. S. N. (Retired)--President, Air Transport
 Association of America
 Landis, James M.--Chairman, Civil Aeronautics Board
 Law, Hervey--General Superintendent of Airports, New York Port Authority
 Lee, Josh--Member, Civil Aeronautics Board
 Lewis, William C.--Director, Air Reserve Association of the United States
 Litchfield, Paul W.--Chairman of the Board, Goodyear Tire & Rubber Company
 Lombard, Dr. Albert E.--Consolidated-Vultee Aircraft
 Lovett, Robert--Under Secretary of State
 McDonald, David J.--Secretary-Treasurer, United Steel Workers of America
 Mahoney, E. J.--Director, International Postal Transport, Post Office Department
 Marshall, George C.--Secretary of State
 Martin, Glenn L.--President, Glenn L. Martin Company
 Martin, Roy--Under Second Assistant Postmaster General
 Merriam, Lewis--Vice President, The Brookings Institute
 Merritt, K. N.--Vice President, Railway Express Agency
 Mooney, James--President, Willys-Overland Motors, Incorporated
 Moseley, C. C.--Cal Aero Technical Institute
 Munro, C. Bedell--Former President, Capital Airlines, Incorporated
 Munter, Herbert--Vice President, West Coast Airlines
 Murray, Roger--Vice President, Bankers Trust Company
 Nelson, Donald--President, Society of Motion Picture Producers of America (formerly
 Chairman War Production Board)
 Nimitz, Fleet Admiral Chester W., U. S. N.
 Northrop, John K.--President, Northrup Aircraft, Incorporated
 Norton, Garrison--Assistant Secretary of State; Chairman, Air Coordinating Committee
 Patterson, Robert--Patterson, Belknap and Webb (formerly Secretary of War)
 Peale, Mundy I.--President, Republic Aircraft Corporation
 Phillips, Mallory--Director, Domestic Air Postal Transport, Post office Department
 Piasecki, Frank N.--President, Piasecki Helicopter Company
 Pogue, L. Welch--Chairman of the Board, National Aeronautics Association
 Pois, Joseph--Assistant to the President, Signode Steel Strapping Company
 Putnam, Carleton--President, Chicago and Southern Airlines
 Ray, James C.--Vice President, Southwest Airways
 Raymond, A. E.--Vice President-Engineering, Douglas Aircraft Corporation
 Rentzel, D. W.--President, Aeronautical Radio, Incorporated
 Richardson, Rear Admiral, L. B., U. S. N. (Retired)--Vice President, Curtiss-Wright
 Corporation, Airplane Division
 Rickenbacker, E. V.--President, Eastern Airlines, Incorporated

Robinson, R. G.--Assistant Director of Research, National Advisory Committee for Aeronautics

Roig, Harold J.--President, Pan American Grace Airways

Rosendahl, Rear Admiral C. E., U. S. N. (Retired)

Rosenheim, Howard H.--International Register Company

Royall, Kenneth--Secretary of the Army

Schildhauer, C. H.--Captain, U. S. N. (Retired); U. S. Flying Boats, Incorporated

Schroeder, Lester--National Association of State Aviation Officials

Sikorsky, Igor I.--Director of Engineering, Sikorsky Division of United Aircraft

Slater, John--Chairman of the Board, American Overseas Airlines, Incorporated

Slick, Earl F.--President, The Air Freight Association

Smith, C. R.--Chairman of the Board and Chief Executive Officer, American Airlines, Incorporated

Smith, William W.--Chairman, Maritime Commission

Snyder, George W., Jr.--President, Challenger Airlines

Solomon, S. J.--President, Atlantic Airlines

Spaatz, General Carl--Chief of Staff, U. S. Army Air Force

Stunkel, Regan C.--President, Aviation Maintenance Corporation

Sullivan, John Dwight--Secretary, National Air Council

Sullivan, John L.--Secretary of the Navy

Swirbul, Leon A.--President, Grumman Aircraft Corporation

Symington, W. Stuart--Secretary of the Air Force

Tibbets, Kenneth W.--President, National Credit Corporation

Trippe, Juan T.--President, Pan American Airways System

Van Zandt, Parker--Aviation Consultant

Victory, John F.--Executive Secretary, National Advisory Committee for Aeronautics

Wallace, Dwayne L.--President, Cessna Aircraft Company

Ward, J. Carlton, Jr.--President, Fairchild Engine & Airplane Corporation

Webb, James E.--Director, The Bureau of the Budget

Webb, R. A.--General Agent, Illinois Central Railroad

Webster, Edward M.--Commissioner, Federal Communications Commission

Wetmore, Alexander M.--Chairman, National Air Museum

Willis, Charles F., Jr.--President, Willis Air Service

Wright, Burdette--Vice President, Curtiss-Wright Corporation

Wright, T. P.--Administrator, Civil Aeronautics Administration

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